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ORIGINAL LECTURES.

ON THE TREATMENT OF NEURALGIA.[1]

A Clinical Lecture

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GENTLEMEN: I purpose devoting a lecture or two to that very common affection which you will often have occasion to treat, and the therapeutics of which you ought well to understand—neuralgia.

Despite the recent extensive researches into the functions of the nervous system, we have not yet precise and certain data concerning neuralgia, and we are compelled to define this affection by the principal characters which it presents, and neuralgia is still a symptom rather than a pathological unity. Without entering here into a discussion respecting the structural diseases of nerves, and the neuralgias, which are veritable neuroses, I believe that the symptom known as pain is produced whenever there is molecular alteration or modification of sensory nerves. I do not believe in "essential" neuralgias, and I am persuaded that when we come to understand better the physiology and pathology of the nervous system, that word *essential*, which only conceals our ignorance and our uncertainty, will disappear from the nosological category.

What is of importance for us to know from its bearing on the treatment of the neuralgias, is the pathology and etiology of this affection; on this point I must dwell briefly. I have told you before that in order that the functions of the nervous system may be regularly and normally performed, three conditions must be fulfilled. There must be: 1. Integrity of the nervous system itself, cells and fibres; 2. Integrity of the circulation; 3. Integrity of the nutrient blood. The sensory system of nerves is no exception to this law, and every circumstance, whether connected with the state of the blood or the bloodvessels, which modifies these nerves or their centres, may give rise to pain. Let us consider each of these conditions separately.

From the standpoint of the nervous system, all alterations, from the profound modifications of neuritis to simple molecular disturbances, may be the point of departure of the clinical syndrome described under the name of neuralgia; wounds of nerves, irritation, compression of nerves, inflammation of the neurilemma, neuritis properly so called, are all so many causes of persistent neuralgias. It has even been claimed that rebellious neuralgia is always neuritis. In my opinion, if inflammation of a nerve sometimes gives rise to a stubborn neuralgia, we are not to conclude from this that every persistent neuralgia is of inflammatory origin, for some quite obstinate facial neuralgias have a different origin.

As for circulatory troubles, they have a manifest influence on the production of neuralgic phenomena, and in this regard two sorts of neuralgia may be distinguished; those which result from want of blood—anæmic neuralgias, and those which result from excess of blood—congestive neuralgias, to which Gubler first called attention.

It is to these disturbances of the circulation that neuralgias due to the impression of cold have been referred, and which are so frequent. Some explain them as the result of anæmia of the cutaneous extremities of sensory nerves, others as the result of congestion of the nervous centres. The question is more complex than one would suppose, and it is impossible at the present day to decide it one way or the other. Lastly, in certain cases alterations of the blood constitute the point of departure of the neuralgia; it is in this way that chlorosis, the influence of certain poisons, of the marsh miasm, of certain diatheses, may give rise to veritable dyscrasic neuralgias. Whether resulting from alteration of the blood, of the nervous system, or from circulatory disturbances, these diverse modifications may affect the sensory nerve in three points of its course: its periphery, some part of the main trunk, or its central termination.

At the periphery, every cause which, through traumatism or atmospheric changes, modifies the terminal sensory fibre, may determine a neuralgia which shall spread to all the ramifications of the nerve. As an example, I refer you to dental neuralgia. A carious tooth produces some alteration of the dental pulp, and an irritation spreads along the dental nerve, causing pain in all the branches of the trifacial. The annals of medicine are full of similar facts, where we see neuralgias persist for years, in consequence of the presence in the tissues of foreign bodies which irritate the peripheral extremities of sensory nerves. But in order that there may be a painful sensation, a sentient cell must be touched; and this is a point on which Vulpian, Anstie, and especially Vanlair, have insisted. It is then well understood that if theoretically there exist peripheral neuralgias, yet in order that there may be phenomena of pain the neuralgia must be central.

These preliminaries being settled, we will now enter on the treatment of the neuralgias; but in order to pass in review the numerous therapeutic measures recommended in these cases, I shall be obliged to establish a certain number of divisions. Therapeutic agencies applicable to neuralgia may be classed in two distinct groups—the one addressed to the symptom pain which characterizes the neuralgia, this is symptom treatment; the others are directed to the cause of the pain, this is pathogenetic treatment.

Symptom treatment is subdivided into three groups. In the first are placed all medicaments which act by modifying more or less profoundly the functions of the nervous system, and which are described under the name of hypnotics, anæsthetics, analgesics, anti-neuralgics, etc., such as opium, chloral, chloroform, and aconite. The second group contains medicaments which act by substituting for the pain, another pain, and constitutes revulsive or substitutive medication; we place here vesicatories, cauterizations, etc. The third group contains substances which experience has shown to have powerful anti-neuralgic properties, but the mechanism of whose action is not known, such as turpentine, guarana, and sulphate of copper.

I shall first briefly examine the medicaments of the three divisions of the first group, then the bases of the pathogenetic medication, and finally shall take up, in order, certain forms of neuralgia and their treatment.

In the first group stand prominently forth, opium and its derivatives, chloral and chloroform, aconitine and gelsemine, electricity and hydrotherapy.

Opium is undoubtedly one of the means the most

[1] Translated from advance sheets by E. P. Hurd, M.D., of Newburyport, Mass.

employed in the treatment of pain in neuralgia, and since the introduction into medicine, by Wood, of hypodermic injections, it may be truly said, that it is on subcutaneous injections of morphia that we rely most to subdue pain, or at least to obtain temporary alleviation.

Is it necessary to make the subcutaneous injection *in loco dolentiæ?* Some, and Chouppe in particular, have answered this question affirmatively. I do not think so. If morphine relieves neuralgia, it is not by any local action on a nerve or nerves in a painful region, but by modifying the sensory nerve-centre; the anodyne must first enter the circulation and be carried to the heart, then sent to the cerebro-spinal axis, before it can have the effect sought. The injection then may be made with equal advantage on the thighs, hips, or the fleshy part of the arm, wherever it can be made the most easily.

You may use Magendie's solution made with cherry-laurel water, or any other good menstruum that will not ferment; the average dose being one or two centigrammes. Constantine Paul recommends water that has been boiled. If you use common water, mucedines will be sure to form in your solution after a few days. Bardet has shown that these aid in the transformation of morphia into apomorphia.

These subcutaneous injections, which have supplanted all other modes of administration of opiates in the treatment of neuralgias, have one great disadvantage, and only one—the patient easily becomes habituated to them, and resorts to the hypodermic syringe, not to obtain relief from pain, but an excitation which henceforth becomes a necessity. That will be a curious chapter of pathology, which shall describe the progress of morphomania in our times; it will show that it has almost always been the case that inveterate and deplorable habits of morphia-taking have had their origin in the use of hypodermic injections of that anodyne in the treatment of neuralgia.

When the hypodermic method was first introduced, Wood, in Great Britain, and Behier, in France, employed atropine, but this medicament was soon abandoned on account of the dangers which it presented, and the delirium which frequently followed its use. At the same time you may derive benefit from the association of the two medicaments, and I recall to your remembrance the formula which I habitually use:

℞.—Sulphate of atropine, . . 0.01 (gr. ⅙).
Hydrochlorate of morphia, . 0.10 (gr. iss).
Cherry-laurel water, . . 20.00 (℥vss).—M.

A cubic centimetre (15 m.) or about a syringeful of this solution, contains half a milligramme ($\frac{1}{118}$ gr.) of atropine, and half a centigramme ($\frac{1}{12}$ gr.) of morphia.

It has been asserted that injections of plain water would relieve pain as effectually as injections of morphia, and Dieulafoy has given his support to this statement. I showed in 1872 that only injections of morphia can be relied upon to calm the pain, and that any occasional anodyne effect produced by injections of water, is due to distention or rupture of certain muscular fibrillæ.[1]

Chloral is one of the best anodynes that we possess; it has only one inconvenience, that it cannot be administered a great while to the same individual without determining by its caustic and irritant action a chronic inflammation of the digestive tube. Therefore, I have recommended, in order to obviate this inconvenience, to give the chloral preferably by enema; the following combination administered *per rectum* will do good service. Take the yolk of one egg, beat it up in a gill of milk, and dissolve one or two grammes of chloral. Administered in this way, the chloral, however, in a few days irritates the rectal mucous membrane, and must be suspended

Certain derviatives of chloral have been proposed as a substitute, and croton-chloral has been especially vaunted by Liebreich, Benson Baker, and others in Germany and in France. Croton-chloral and butyl-chloral are given in the dose of thirty centigrammes to one gramme every three hours, till the paroxysm disappears; despite the advantages which this remedy possesses in tic douloureux, it is little used in the treatment of neuralgia.

Chloroform is also in current use in the treatment of neuralgia; it is employed almost exclusively locally, occasionally, however, by inhalation in the case of neuralgias that are horribly painful. Locally it is used in the form of liniment, or injected subcutaneously. Aran, Dupuy, De Frenel, and others, advised a long time ago to treat neuralgias locally by compresses wet with chloroform, and recently Brown-Séquard has experimentally demonstrated the analgesic action of these local applications. But it is especially in hypodermic injections that this medicament gives good results.[1]

Introduced into therapeutics by Roberts Bartholow, of Philadelphia, then by Doe, of Boston, the usage of subcutaneous injections of chloroform did not become general in France till Ernest Besnier made his favorable report. I have myself made trial of this method in my hospital practice, and my pupil, Henry Fournier, has given the results in his thesis. In order that these injections of chloroform may do good, they must be made in the painful region, and they must be introduced deeply in the cellular tissue, or muscular interstices; neglect to follow this rule has resulted in accidents, and in failure. Plunge your needle, then, perpendicularly into the tissues, and carry it as far as the guard at the proximal extremity. This mode of treatment is hardly applicable to any form of neuralgia except sciatica.

By these subcutaneous injections of chloroform you may obtain two different results—either disappearance of local pain after small doses, or general effects, characterized by sleep, when you inject two, three, four, and even ten grammes of chloroform, without, however, at any time obtaining surgical anæsthesia. Why do you not obtain complete anæsthesia? It is because chloroform, when introduced beneath the skin, is absorbed by the veins and lymphatics, and carried to the lungs before entering the arterial system to be distributed to the brain and other nerve-centres, and in the lungs it is in large part eliminated. What remains uneliminated, and such portion of the vapor of the chloroform as, after being expired, returns to the lungs in the air of inspiration, passes into the blood of the aortic system, and is carried to the brain, where it has

[1] The fact that intense pain is sometimes relieved by a hypodermic injection of water, has been attested by a great many observers. Gubler, who has many times witnessed the phenomenon, explains it as the result of a local infiltration, not only of the cellular tissue, but of the histological elements as well. There are degrees of hydration of the tissues, and there is a marked relation between this hydration and divers modes of sensibility; witness cases of anasarca, in which the infiltrated tissues are relatively insensible, as you will see by testing the sensibility over the œdematous parts, and over the surrounding region not invaded by the anasarca. The aqueous injections succeed the best, according to Gubler, in those neuralgias which are called congestive.—*Vide* Gubler, *Cours de Therapeutique*, p. 238, Paris, 1880.

The whole subject is far from being clear.—TRANS.

[1] Roberts Bartholow, "On the Deep Injection of Chloroform," in the *Practitioner* for 1874. Ernest Besnier, "On Subcutaneous Injections of Chloroform," in *Bull. de Therap.*, t. xciii., p. 433. Stedmann, "Eight Cases of Neuralgia Treated by Deep Injections of Chloroform," *Boston Med. and Surg. Journ.*, May 24, 1877. Dujardin-Beaumetz, "Des injections hypodermique de chloroforme," *Bull. et mem. de la Soc. de Therap.*, t. v. pp. 39, 40, 1878. H. Fournier, *These de Paris*, 1878.

a more or less sedative effect, according to the quantity which has escaped the eliminating action of the lungs. In producing surgical anæsthesia by inhalations of chloroform, you practically suppress the principal source of elimination, and charge the arterial blood with the toxic agent.

By the side of these medicaments, and even at their head, we must place aconite and aconitia, which give marvellous results in certain varieties of neuralgia, and especially in facial neuralgia of the congestive form. Experiments have shown that aconitia has an action quite special on sensory innervation, and in particular on that of the trifacial, and it is this action which Oulmont, Séguin, Franceschini, and Laborde have utilized in the treatment of neuralgia. You can then make use of the crystallized nitrate of aconitia, and as there exist impure aconitias in commerce, you would do well to order the preparation of Duquesnel. The granules of Duquesnel contain each one-quarter of a milligramme of aconitia; you may give one of these granules every three hours till eight are taken in the course of twenty-four hours.

Crystallized aconitia is one of the most energetic poisons; and you ought rarely to exceed the dose of two milligrammes a day; there are some patients even in whom, owing to their susceptibility to the drug, this dose cannot with safety be reached. You ought then to suspend the medicine when the patient complains of an uncomfortable sensation of constriction of the mouth and eyes, and tingling in the tongue, which are the first toxic manifestations. When you cannot obtain aconitia, you can employ the tincture of the root (the tincture of the leaves is not to be relied on). Of the common tincture of aconite root, you may give ten drops every three hours. [Fleming's tincture is much stronger, and should not be given in a larger dose than five drops, at least as a commencing dose.] The tincture is much inferior to aconitia, at least, in the treatment of facial neuralgia. I cannot too highly commend the alkaloid in prosopalgia; since I have been in the habit of using it, I have obtained cures in a great many cases, and always an amelioration.

In my judgment gelsemium sempervirens and gelsemin merit a place far below aconite and aconitia. In the rich, moist soils of Virginia and the Carolinas grows a climbing plant with yellow flowers, called the yellow or Carolina jasmine; it is the gelsemium sempervirens. From the root and stalk is obtained an alkaloid called gelsemin, discovered by Fredigke. A tincture is made from the root, which is given in the dose of ten drops every two hours. This tincture has been made the subject of experimentation by Wickham Legg, Cordes, of Geneva, Hill, of the United States, Spencer Thompson, Sidney Ringer and William Murrell, Massini, Suraszc, Roberts Bartholow, and others, who have obtained remarkable results in the treatment of facial neuralgia, and neuralgias especially of the paroxysmal or intermittent form.

I was the first in France to experiment with this tincture, and my pupil, Dr. Eymery-Heroguelle has reported the results in his thesis of graduation (August, 1877). I obtained certain favorable results from the tincture, but I found it an uncertain medicament. Moreover, the tinctures were of no definite and uniform strength, a fact due probably to the circumstance that in making the fluid preparations all parts of the plant, as well as the roots, were used, or possibly because pains were not always taken to obtain the fresh, green root; as a consequence, the same doses sometimes gave toxic effects, sometimes no effect at all. In one of our patients, symptoms of poisoning, of the utmost gravity, from the medicinal use of the tincture were noted. Such toxic phenomena have already been often reported as the result of the free use of this tincture, and Hanna, Freeman, and Courtright have even known death to follow. I have, therefore, abandoned, in the treatment of neuralgias, the use of this drug, as being uncertain and dangerous. These inconveniences may be avoided by the use of gelsemin; but this alkaloid is little known, having been as yet little studied, and seems much inferior as an anodyne to aconitia.[1]

In the same group of medicaments, we must place electricity and hydrotherapy, which modify more or less directly the nervous system.

Electricity is one of the most active agents in the treatment of rebellious neuralgias. In my lecture on "Medical Electricity," I told you that electricity modifies the molecular state of nerves during its application, and sets up polar currents in the nerves which prolong its effect; you need not be surprised, then, at its beneficial effect in neuralgia.

You may make use of faradic or galvanic currents; the latter are much to be preferred. The negative pole is applied near the nerve-centre, the positive pole (which is the truly sedative pole) may be moved over the different painful points of the affected nerve. When you are treating tic douloureux, your currents should be very mild, and should not exceed three or four milliampères. In fact, too intense galvanic currents applied in the region of the encephalon, determine two effects which we ought to avoid—syncope on the one hand, and certain photopsias on the other; it is well, then, to use very light currents.

In the case of sciatica, your current should be much stronger; twenty milliampères, and even more. When treating of electricity in medicine I gave you a definition of this term (milliampère), and told you that it was the basis on which are graduated all our modern galvanic machines and the only scientific means at our command of comparing observations relative to the medical application of electricity. In the treatment of neuralgia it is necessary to be precise as to the quantity, if we would employ electro-therapeutics to advantage.

As for the duration of the current, authorities are far from being agreed, some recommending prolonged, others very short sittings. I think, with Apostoli, that the duration of the *séance* cannot be fixed in advance, and that the passage of the current should be continued till the pain disappears, or at least till some mitigation is obtained.[2]

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[1] Numerous fatal cases are on record in American journals of poisoning by gelsemium. Thus, Pinkham's case in the *Boston Med. and Surg. Journ.*, for 1876; that of Boutelle, of Boston, in the same journal; that of Wormley, in the *Amer. Journ. of Pharmacy*, 1870; also that of Seymour, in the *Therapeutic Gazette*, for 1882. Freeman's three cases (referred to in the text) occurred in 1860; death occurred from taking one or more (in one instance, less than one) teaspoonful doses of the tincture. I myself came near dying four years ago from the effect of a drachm dose (given through mistake) of Wyeth's fluid extract of gelsemium; there were dimness of vision and double vision, irregular breathing, the most alarming prostration, and general muscular paralysis; the use of electricity and stimulants (capsicum, quinine, and strong coffee) brought me out of danger in a few hours. The toxicological history of this drug is well summed up by Ringer, in the *Lancet* for 1878.

Despite the danger attending the use of gelsemium in large doses, I have found moderate doses (five to ten drops of the tincture every two hours) a charming remedy in facial and especially dental neuralgias.—Trans.

[2] In the treatment of neuralgia, faradic, galvanic, or static electricity may be employed.

Induced currents.—Becquerel was one of the first to recommend the use of very strong and rapid currents. He advised the extra current and a wet sponge for electrode, and directed to apply the positive pole over the part of the nerve nearest the nerve-centre, and the negative pole over the divisions of the nerve; to be passed to and fro. *Seances* of five minutes' duration.

Duchenne preferred the revulsive method—the painful region to be electrified by the metallic brush; a very strong current with

It is in proceeding in this way that Remak, Onimus, Bouchaud, Craddock, Ouspenski, etc., have obtained results that are truly marvellous in the treatment of obstinate neuralgias, and especially in neuritis. I, myself, employed as far back as 1872 these constant currents in the treatment, more especially, of sciatica, and one of my pupils, Dr. Cado, has given the results (often most gratifying) in his thesis.[1]

But if electricity, methodically employed, may mitigate and cure neuralgic pains, you should repudiate altogether those "electric" (?) chains, belts, and pads, which you see advertised for pain, and especially for the cure of migraine. These contrivances are so badly constructed that they are incapable of generating any current, and can have no effect at all, unless a moral effect by acting on the imagination of the patient.

Hydrotherapy, like electricity, is one of the most active agencies in the treatment of neuralgia. Cold water acts, not only by modifying directly the neurility of sensory nerves, but also in promoting healthy circulation and nutrition, and I know of no better means of arresting a paroyxsm of neuralgia, or even of preventing the return of an attack than the douche.

Next in order come the surgical measures, which have a direct action on the painful nerve. These are: 1. Neurotomy; 2. Neurectomy; 3. Nerve-stretching.

1. The section of nerves for the relief of neuralgias is quite an old operation, having been performed more than a century ago by Maréchal in numerous cases. The results are generally temporary and disappointing. Simple division of the diseased nerve is not enough, and neurotomy has given place to (2) neurectomy, which consists in resection of a portion of the nerve; this operation gives permanent cures, the *rationale* of which is easily understood when you recall to mind the way nerves undergo regeneration. This method, which is only applicable to regions where the sensory and motor nerves are distinct, as in the face, has been signally successful in those painful affections of the fifth nerve known as tic douloureux, and I have a case in point to relate which I am sure will interest you all.

The subject, a patient of mine, was head-clerk in the Hotel Monnaies. This man, for three years, had been a sufferer from a most atrocious facial neuralgia. All medical means had been employed without any decided amelioration. Opium, aconitia, electricity, had failed to give more than momentary alleviation, they could not prevent the return of the cruel paroxysms; the poor man, in despair of a cure, was meditating suicide. Such cases are not exceptional, and you will meet with them in your practice.

It was an infra-orbital neuralgia—perhaps one of the most painful of the facial neuralgias. I advised resection of the upper maxillary nerve, and the operation was performed by my colleague and friend, Terrillon. The nerve was sought at its point of emergence from the foramen, and followed into the floor of the orbit; the terminal portion of the nerve, to the extent of two or three centimetres, was excised. From the moment that the man recovered consciousness from the ether to the present time, now two years, he has had no return of the pain, and the triumph of the operation is complete.

Is the operation always so successful? Unfortunately, no; and many instances are on record where branches of the trifacial have been resected for painful affections, and with the utmost skill and thoroughness, with no result but aggravation of pain to the patient and mortification to the surgeon. In fact, in these cases the neuralgia was undoubtedly central, and it is easy to see that remedial measures which are efficacious when the cause of the disease is peripheral, are useless, and worse than useless, when the prosopalgia owes its origin to some morbid condition of the encephalic trigeminus centre.

Neurotomy and neurectomy being, as we have seen, applicable only to facial neuralgias, it has been proposed, in cases of mixed nerves, where the operation of nerve-section would inflict on the patient a motor paralysis almost as distressing as the neuralgia, to resort to another operation, of quite modern origin, known as nerve-stretching.

Practised for the first time in 1872 by Billroth and Nussbaum, it was not till 1876 that this operation found favor with French surgeons, and Verneuil was the first in our country to attempt nerve-stretching, and this for traumatic tetanus. Since then the operation has become general throughout Europe. Chauvel has given us a very complete *résumé* of the history of this operation in Europe down to 1881, and from his monograph, we find that fifty-two cases of neuralgia had been treated in this manner; in thirty of these cases a permanent cure was obtained, in twelve there was a decided amelioration, and ten were unsuccessful. I have not time to enter into these details, which enable us to appreciate, at its just worth, this therapeutic measure, and which consists, as you well know, in exposing the trunk of a nerve and making more or less forcible traction on the same.

Generally, after the stretching the pain disappears, but it is liable to return in a short time; yet in a good many cases the benefit obtained is permanent.

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rapid interruptions. This is the method of "electric fustigation" employed by Tripier.

Galvanic currents.—Magendie employed electro-puncture with the galvanic current; this process is now abandoned.

Remak, Ramios, Rosenthal, and Meyer make use of a centrifugal or descending current; positive pole in the vicinity of the nerve-centre, negative pole at the periphery.

Onimus also uses the descending current; placing the positive pole over the point of emergence of the nerve, the negative pole over the terminal branches, and passing for fifteen minutes a current of thirty elements of Remak. He advises weak currents, but of long duration.

Niemeyer, Tripier, Apostoli, and Bardet, on the contrary, recommend to apply the positive pole over the *point douloureux*, and this is the practice of most electro-therapeutists at the present day.

Static currents.—Arthuis has treated with great success a large number of neuralgias by Franklinic electricity. He employs the electric bath, and the electric brush, which is moved over the branches of the painful nerve.

As for the treatment of certain forms of neuralgia—facial neuralgia and gastralgia—this is the procedure of Bouchaud, Craddock, Apostoli, and Beard.

Apostoli employs, in the case of gastralgia, positive polar electrization of the pneumogastric: positive electrode over the pneumogastric, negative pole in the hand of patient.

Bouchaud treats odontalgia by a constant current of ten elements; positive pole on the face as near as possible to the painful nerve, negative pole on the antero-lateral region of the neck. In a few minutes' time marked relief is generally obtained.

Craddock has used the constant current with success in neuralgia of the face. Beard has long insisted on the treatment of neuralgias by electricity. In facial neuralgia, galvanization and faradization rapidly cure, but care and prudence in the use of these means are necessary. In gastralgia, galvanization gives complete success; in sciatica, ameliorates or effects a cure. In the latter malady, Beard recommends to apply one of the poles to the vertebral column at the point of emergence of the nerves; the other pole to be moved up and down the sciatic nerve, and the current to be especially directed to the *points douloureux*. (Beard on the "Treatment of Neuralgia by Electricity," in the *Practitioner*, 1873; and in Beard and Rockwell's *Medical Electricity*. Remak on *Galvano-therapy*, 1860. Onimus and Legros, *Medical Electricity*, Paris, 1872. Bouchaud on "Constant Currents in Odontalgia," *Bull. de Therap.*, tome lxxxv. p. 1. Craddock, "Trigeminal Neuralgia Treated by the Constant Current," *Practitioner*, 1873. Tripier on "Electric Revulsion," *Courrie Medical*, 1870. Apostoli, "Treatment of Gastralgia," *Bull. de Therap.*, 1882, etc.)

[1] L. Cado, "On the Treatment of Sciatica by Galvanic Currents" (*Th. de Paris*, 1872).

How does this elongation of nerves operate in the alleviation of pain? This is a question which we are unable to answer. The more probable supposition is, that the stretched nerves have a reactive influence on the sensory spinal centres, an influence which somehow favorably modifies the molecular state of the cells; this view receives support from the fact that very powerful tractions often do the most good.

Billroth has of late advised to practise what he designates subcutaneous elongation of the sciatic nerve. Struck with the distribution of nerves and bloodvessels in the inferior member, which pass, the former to the posterior part of the thigh, and the latter to the anterior portion, Billroth thought that by flexion of the thigh on the pelvis he might, without injuring the vessels, make energetic traction on the sciatic nerve. This is his manner of proceeding: The patient being completely relaxed from chloroform, the thigh is flexed on the abdomen, and the leg is forcibly *extended* on the thigh till the toes almost touch the head of the patient. This second part of the operation demands great care in its performance. The biceps, semi-tendinosus, and semi-membranosus muscles powerfully resist this movement, and too much violence would result in rupture of these muscles or their tendons, or even dislocation of the head of the femur. After this flexion and extension, the limb is placed in its natural position.

You have seen me this year perform this subcutaneous elongation in three cases. In one, the patient was unable to walk, from an obstinate sciatica, which had lasted three months; here, subcutaneous nerve-stretching brought immediate, permanent cure. In the other two, the benefit was temporary. You remember, too, that it was in arranging the preliminaries for an operation of this kind, that we met with that lamentable accident which caused such consternation among us; I refer to the sudden death from chloroform, whose details have been published by the medical press.[1]

Nevertheless, the misfortune that then happened to us does not militate against the utility of an operation which has now been so often performed with benefit. I believe, then, that in sciaticas rebellious to all therapeutic measures, we are warranted in attempting subcutaneous nerve-stretching, which is doubtless a safer operation than that of cutting down on the nerve, as is usually done, at the junction of the lower and middle third of the thigh, lifting out the nerve with the forefinger, and pulling on it with a force of forty or fifty pounds.

In my next lecture, I shall finish what I have to say on the treatment of neuralgia.

ORIGINAL ARTICLES.

A YEAR'S WORK IN OVARIOTOMY.

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PROFESSOR OF CLINICAL GYNÆCOLOGY IN THE UNIVERSITY OF PENNA.

During the past year I have had twenty-five cases of completed ovariotomy, with six deaths. In not a single instance have I declined to operate; for I have given every woman her chance; but I had two cases which I did not complete. One was a patient of Dr. Charles A. Currie, of Germantown. The cyst contained pus, and communicated with the bladder by a very small opening. On January 24th, after making an exploratory incision, and finding that the cyst was adherent at every point, I did not attempt its removal; but I simply emptied it and put in a drainage-tube. The recovery was slow, but without a bad symptom; and the woman left the hospital in about two months. The other case was a patient of Dr. Emil Fischer. When I was called in, she had had septic fever for six weeks, and I found the cyst tympanitic at every point. She was bed-ridden; her temperature was 102.8°, and her pulse 140. She also had a bed-sore, night-sweats, a red-raw tongue, and incessant vomiting. Notwithstanding her desperately low condition, I had her removed to my private hospital, and decided to give her a chance—hoping against hope that there might not be any other complications. On February 21st, with the help of Drs. Emil Fischer, B. F. Baer, T. V. Crandell, and W. L. Taylor, I began the operation. The cyst was universally adherent, and as soon as I began to enucleate it, I saw that my patient would die on the table. So I contented myself with opening the cyst, cleansing it out, and putting a glass drainage-tube in. The contents of the cyst were fairly rotten, and the puff of fetid gas which escaped from the incision was overpowering. The relief, however, was too late, and the lady died fifteen hours later.

I had also in my private hospital a successful case of nephrectomy; the first operation of the kind ever performed in Philadelphia. The patient was a lady from Salt Lake City, brought to me by Dr. J. F. Bird, of Philadelphia. I at first mistook the cyst of the kidney for one of the ovary, but was soon undeceived. The operation was not an easy one, for I had to strip off the investing coat of the peritoneum, to which the intestines were adherent. On account of a very severe bronchitis and an aphthous mouth and throat, the convalescence was slow; but the lady ultimately got well. This aphthous condition of the mouth and fauces was a very remarkable one. I have seen nothing like it, and I cannot help thinking that the additional work thrown on the remaining kidney must have had something to do with it.

In the following table of twenty-five cases a very unusually large number of double ovariotomies will be noted. There are twelve of them, with three deaths. Of these fatal cases, one, a girl aged 17, died in my private hospital, from acute peritonitis. The other was also a young girl, aged 16, who was operated on in a private-room of the Hospital of the University of Pennsylvania, and died from septicæmia on the ninth day. The third was operated on at home, and died either from shock or from œdema of the lungs. She was in a very feeble condition, and the operation, from pelvic and parietal adhesions, was difficult and tedious. The ether in this case acted badly; the patient becoming cyanosed, and showing afterwards bronchial irritation. I did not see her after the operation. The cysts in these two girls were small, and without serious adhesions. I was greatly disappointed at the result.

From this experience, I am disposed to think it better in such cases to wait until the tumor has developed, and by pressure has so altered the character of the peritoneum as to lessen its vulnerability.

[1] *Vide* Comptes Rendus de l'Academie deMédecine, April, 1882.

Total Number, . .	Name and Residence of Previous Medical Attendant.	Age, ...	Condition, ...	No. of Children, .	Previous Tappings.	Date of Operation.	Place of Operation.	Adhesions, . . .	Ovary Diseased, .	Size and Nature of Tumor, ...	Length of Incision.	Drainage, . . .	Result, ...	REMARKS.
61	Dr. R. P. Harris, Philadelphia.	50	M	1		Jan. 10.	Home.	Omental.	L	20 lbs.	Short.	None.	Recovery.	During the removal of cyst, it burst, and some of the contents escaped into abdominal cavity.
62	Dr. Robert Burns, Frankford, Pa.	56	S		1	Jan. 21.	"	Omental and intestinal.	L	40 "	Long.	"	"	Semi-solid multilocular cyst surrounding descending colon, to which it was attached.
63	Dr. M. M. Lewis, Alexandria, Va.	36	M			Jan. 28.	Private Hosp'l.	Broad ligament and pelvic.	L	3 "	"	"	"	A small cyst removed by enucleation from broad ligament. A difficult operation.
64	Dr. H. H. Muthersbach, Beech Creek, Pa.	31	M			Feb. 10.	Univers. Hosp'l.	Omental and parietal.	R L	112 "	Short.	"	"	Woman weighed 72 pounds after the operation; cyst, 16 pounds; fluid, 96 pounds.
65	Dr. T. J. Yarrow, Philadelphia.	65	M	4		Feb. 14.	Home.	Parietal and broad ligament.	L	10 "	"	"	"	A tumor of omentum, probably malignant, was also found, but could not be removed.
66	Dr. H. W. Newcomet, Philadelphia.		M			March 1.	Univers. Hosp'l.	None.	L	10 "	Long.	"	"	Tumor consisted of a cluster of large cysts, containing a clear fluid.
67	Dr. T. D. Dunn, West Chester, Pa.	27	S			March 1.	"	"	L	20 "	Short.	"	"	Oligo-cyst, with clear, limpid fluid.
68	Dr. F. B. Kellar, Pottstown, Pa.	33	M		5	Mar. 11.	Home.	"	R L		"	"	"	Abdomen filled with liquid; no cyst, but a cauliflower-looking papillomatous degeneration of right ovary.
69	Dr. G. M. Schillito, Alleghany, Pa.	16	S			Mar. 13.	Univers. Hosp'l.	Pelvic and to br. ligament.	L R	15 "	"	"	Died.	Died on ninth day from septicæmia.
70	Dr. Armstrong, Camden, N. J.	30	M	4	2	Mar. 23.	"	Universal.	R	80 "	Long.	Tube.	Recovery.	Several cysts burst into cavity of abdomen during the operation. Taken home on April 9th, and died on 23d from "vomiting."
71	Dr. W. Goodell, Philadelphia.	39	M	2	1	April 15.	Home.	"	L	20 "	"	"	Died from Shock.	Was delirious and in last stages of septicæmia when operated on.
72	Dr. C. McCall, Philadelphia.	56	S			May 4.	Univers. Hosp'l.	"	R	25 "	"	None.	Recovery.	
73	Dr. Shearer, Sinking Spring, Pa.	34	S			May 17.	Private Hosp'l.	None.	R	20 "	Short.	"	"	
74	Dr. De Schweinitz, Philadelphia.	37	M	3		June 15.	Univers. Hosp'l.	"	R L	20 "	"	"	"	
75	Dr. N. F. Ehrenfeld, Indiana, Pa.	46	W	2	5	June 15.	"	Parietal.	R	70 "	"	"	"	
76	Dr. D. Miller, Huntingdon, Pa.	32	M			June 28.	"	Omental.	R L	65 "	"	"	"	
77	Dr. G. R. Robbins, Hamilton Sq., N. J.	44	W	2		Sept. 6.	Private Hosp'l.	None.	L R	20 "	"	"	"	
78	Dr. B. F. Baer, Philadelphia.	22	S		2	Sept. 19.	Univers. Hosp'l	"	L R	10 "	"	"	"	

Total Number.	Name and Residence of Previous Medical Attendant.	Age.	Condition.	No. of Children.	Previous Tappings.	Date of Operation.	Place of Operation.	Adhesions.	Ovary Diseased.	Size and Nature of Tumor.	Length of Incision.	Drainage.	Result.	Remarks.
79	Dr. T. B. Hayes, Bellefonte, Pa.	65	W		1	Oct. 5.	Univers. Hosp'l.	None.	R	25 lbs.	Long.	None.	Died.	Died from uræmia, kidneys being greatly diseased.
80	Dr. J. W. Anawalt, Greensburg, Pa.	28	M			Oct. 21.	Private Hosp'l.	Uterine and pelvic.	R L	10 "	Short.	"	Recovery.	Right ovary without pedicle, and adherent to womb; left ovary embedded in broad ligament.
81	Dr. C. M. Gandey, Ocean View, N. J.	42	M	3		Oct. 22.	Home.	None.	L R	15 "	"	"	"	
82	Dr. W. Goodell, Philadelphia.	51	M	6		Nov. 13.	Private Hosp'l.	Omental, pelvic, uterine.	L R	40 "	Long.	"	"	Neither ovary had a pedicle, and each was so adherent to womb that uterine tissue was ligated.
83	Dr. C. W. Gerry, Trenton, N. J.	43	S			Nov. 14.	Univers. Hosp'l.	Omental.	L	30 "	"	"	Died.	A pedunculated fibroid also removed. Patient died on eighth day from acute mania.
84	Dr. L. P. Morawetz, Baltimore, Md.	17	S			Nov. 19.	Private Hosp'l.	None.	R L	15 "	"	"	"	Died from acute peritonitis.
85	Dr. J. Simpson, Philadelphia.	31	M	2		Dec. 24.	Home.	Parietal, omental, and pelvic.	L R	50 "	"	"	"	Was greatly debilitated, and died from shock.

In all these cases of double ovariotomy, the second ovary was removed because, in every instance, it showed evidences of cystic degeneration. But, as my experience ripens, I feel more and more inclined to extirpate both ovaries in certain conditions. For instance, in future, I shall remove both ovaries whenever the womb contains a fibroid tumor. By so doing, the growth of the fibroid will be checked. Again, whenever the woman has passed the climacteric, I deem it good policy to remove the second ovary, however healthy it may be, in order to take away the chance of its future degeneration.

With regard to the three other fatal cases, a word is needed. Case 71 was in every sense of the word a forlorn case, and operated on from a sheer sense of duty. She was thirty-nine years old, and had borne two children. Ten years ago the tumor was first discovered, but it remained quiescent until two years ago, when it began to grow rapidly, and she came on from Windsor, Vermont, with very indefinite ideas of having something done for it by internal medication. I first saw her on March 27th, and found her bed-ridden with diarrhœa, rectal tenesmus, high temperature, rapid pulse, and night-sweats—and I diagnosticated a suppurating cyst. As she was unwilling to be operated on, even to be tapped, I put her in charge of Dr. T. V. Crandall, who did all in his power to control these symptoms and get up her strength. She, however, became worse; delirium set in; her pulse ranged from 120 to 140 beats; her temperature from 101.5° to 103°. As she plainly had but a few days to live, I aspirated on April 7th, emptying four cysts from two different punctures. The stench from the putrid fluid was abominable. This operation gave her some relief for a few days, but she soon became worse than before. So, on April 15th, as a forlorn hope, I decided to remove the cyst at her boarding house, as she was too ill to be removed to the hospital. Drs. B. F. Baer and T. V. Crandall, and my son aided me in the operation; and it was witnessed by Dr. J. H. Rogers, of Sag Harbor, N. Y., and Drs. J. V. Shoemaker, W. Cruice, Vanderbeck, Milliken, and Schwenck. The tumor was a polycyst of the left ovary, with also many exogenous, or outside cysts, each one containing putrid matter. The cyst was adherent at every point up to the pedicle itself, which was short but slender, was much thickened, and glued wholly to the tumor. In breaking up the adhesions in each flank, an abscess outside of the tumor was torn open, and the contents escaped into the peritoneal cavity. Some of the outside cysts also burst and emptied themselves into the same cavity, giving out a sickening stench. The reflected fold of the peritoneum, together with the bladder, was carried up on the cyst-wall as high as the navel, and needed very careful dissection. The right ovary could not be found. Several times during the operation the woman seemed about to die on the table, but she was resuscitated by subcutaneous injections of ether and brandy. She subsequently rallied enough to converse with her friends, but she died about midnight from shock. Altogether, this was the most formi-

dable operation that I have yet performed, and it is a question in my mind whether, under the circumstances, I ought to have undertaken it; but, knowing that it was her only chance, I felt it my duty to give it to her. Case 79 died comatose, in about forty hours after the operation, which was performed at the Hospital of the University. There were no complications other than the long incision needed for the extraction of a large multilocular tumor, too solid to be reduced in size. There were from the first, coma and suppression of urine. At the autopsy the liver was found to be fatty, the kidneys greatly contracted, and the spleen hypertrophied and breaking down. Her advanced age and the carbolated spray had probably something to do with the unfortunate result. The death of Case 83 remains yet a mystery to me. The operation was performed at the hospital, and was unusually easy. The tumor consisted of a thick-walled, partly solid multilocular cyst of the left ovary, and was nourished more by the omentum, to which it was attached, than by a very slender and long pedicle. She did extremely well for six days; then acute mania set in, from which she died twenty-four hours later. The autopsy revealed no cause whatever for this unexpected death, and I am disposed to attribute it to embolism. She had multiple uterine fibroids, and one of them, as large as an apple and pedunculated, I removed, but I do not think this had anything to do with the result.

A few words about Case 70 are needed. At the time of the operation she was much emaciated; very feeble, and greatly distended by eighty pounds of fluid. The sac had hepatic, omental, intestinal, pelvic, and parietal adhesions, and she narrowly escaped dying on the table. For several days she lay in a critical condition; then she slowly began to mend. She was fairly convalescent when she became homesick, and on the eighteenth day after the operation insisted upon being taken to her home in Camden, New Jersey. A year later I learned that she died from "vomiting" fourteen days after her removal. She was a homœopath, and one of her reasons for going home was that she objected to our medicines.

The results of my cases are not as good as those of British ovariotomists; but these gentlemen do not publish their uncompleted operations, nor the cases on which they decline to operate. Without these data, no just estimate can be made of individual success. My statistics, however, compare very favorably with those of the Vienna General Hospital for 1881. During that year "ovariotomy was performed sixty-four times, with thirty-eight recoveries, twenty-five deaths, and one woman discharged with marasmus."[1]

The chief lessons which I have learned from my experience during the last year, are: First, to administer ether largely diluted with atmospheric air. Hitherto, I have, in common with most American surgeons, given this anæsthetic by a closed cone, in such a way that the patient breathed her own air over and over again. I am now disposed to think that this is a very unsafe mode, and that to it is due, in a large measure, the alarming prostration of the patient while undergoing the operation. For instance, among the twenty-five cases of last year, Cases 70, 71, and 82, presented such profound symptoms of shock, that the operation had to be suspended until hypodermic injections of brandy and of ether were made, and some degree of reaction had set in. In Cases 70 and 71, it was indeed with great difficulty that the women were kept from dying on the table; while Case 85 clearly died from œdema of the lungs. Now, I do not find such alarming symptoms referred to in any reports of cases by British operators. I am therefore forced to the conclusion, that either under the strain of rivalry they do not operate in very desperate cases, or their mode of administering anæsthetics is a safer one than ours. Fully impressed with this idea, I have lately been using Dr. Allis's improved inhaler, and have thus far found it to act promptly, safely, and economically.

My second lesson is not to include the recti muscles in the sutures which close the abdominal wound. In most cases of ovarian tumor, and especially in those in which the cysts are large, the recti muscles are so widely separated from one another, that they barely come into view, and are not likely to be included in the sutures. But in cases of small cysts, and especially of öophorectomy, the *linea alba*, being then a mere line, cannot always be closely followed by the knife, which is likely to go astray into the sheath of one of these muscles. To get back to the linea alba needs careful dissection, and into the more or less ragged wound thus made, the bellies of these muscles pout. The temptation is so strong to include them in the sutures, that I have hitherto done so. But, finding that abscesses are likely to form in the track of these sutures, I now exclude these muscles.

[1] MEDICAL NEWS, Dec. 30, 1882, p. 745.

THE ABRUS PRECATORIUS (JEQUIRITY) IN THE TREATMENT OF SOME DISEASES OF THE EYE.

BY U. H. BROWN, M.D.,
OF SYRACUSE, NEW YORK.

THE profession are indebted to that indefatigable worker and student, Dr. De Wecker, of Paris, for the introduction into ocular therapeutics of a remedy which has proved itself of great value in the treatment of some of the most intractable forms of eye disease, such as granular conjunctivitis, inveterate pannus, corneal ulcers, etc.

Jequirity, or gequirity, is a shrub, generally known under this name in the north of Brazil, of the class of the dicotyledons, and belongs to the vegetable family of the *Abrus* species.

According to Le Maout and Decaisne (*Traité général de botanique*), the little shrub is original of Africa and tropical Asia, and transplanted to South America. On the other hand, M. Mello e Oliveira, a Brazilian botanist, claims that it is indigenous to Brazil, and non-transplantable. It grows everywhere in Brazil, as well in the highlands as in the interior or on the coast, but is particularly abundant

in the province of Matto-Grasso, which lies between the basins of the Amazon and the Plata, and in the "midst of its virginal forests, where the hand of agriculture has never penetrated." The root is employed in all the torrid zones for the same use as liquorice. The seeds or beans are red, lustrous, irregularly spheroidal in shape, hilum black, and so hard that they are used for making collars and other ornaments. They are found in a great pod, an inch and a half in length, opening by two valves, and divided into as many cells as there are seeds.

The *Abrus precatorius* has been used for years in certain provinces of Brazil, empirically, as a remedy for "granulated eyes," and came to the notice of De Wecker through a patient who had been cured by its use.

De Wecker began his experiments at his clinique in Paris, and published the results in the *Annals D' Oculistique*, for August, 1882, and has followed it in the December number of the same journal with another article confirming his first experience with the drug.

In preparing the remedy for use, he follows the formula which is used in Brazil, viz., "Triturate 32 well-pulverized seeds, and macerate them twenty-four hours in 500 grammes of cold water. The following day add 500 grammes of hot water. Filter the liquid immediately after cooling."

The effect which is desired from the application of the drug is the excitation of a purulent inflammation of the conjunctiva of an intensity sufficient to destroy the granulations, such a result as is sought for by inoculations with gonorrhœal pus.

De Wecker thinks that jequirity develops a vegetable ferment upon the diseased conjunctiva, which prevents the evolution of new granulations, and is destructive to those already formed. And further, he concludes from his experiments:

"*First.*—That the lotion of the infusion of the seeds of jequirity produces a purulent ophthalmia of a croupous nature, of which one can regulate the intensity according to the number of applications made, and the strength of the remedy which is employed.

"*Second.*—That the cornea does not run the least risk during the development of the purulent condition, as it is only when the ophthalmia has been pushed to the point of a veritable diphtheria that this membrane shows a passing circumscribed desquamation.

"*Third.*—That jequirity ophthalmia *rapidly* cures granulations, and with infinitely less danger and trouble to the patient than inoculations with gonorrhœal pus, for the ophthalmia produced by jequirity disappears of itself in from eight to twelve days, without the intervention of any treatment, by simply confining the patient to a darkened room."

My experience with the drug confirms the report as regards its effect locally and constitutionally. Soon after the application of the jequirity lotion to the inverted lids, sensations of heat and pain are felt, attended with lachrymation; after the second and third applications, made at intervals of from four to six hours, a decided irritation of the ocular and palpebral conjunctiva is produced, followed within the next few hours by a purulent secretion, swelling of the eyelid, together with œdema of the conjunctiva; a false membrane of a whitish color forms upon the conjunctiva. Usually after four or five applications of the remedy a purulent ophthalmia is produced, with its accompanying constitutional symptoms, viz., feverishness, headache, constipation, etc. When the drug has only been pushed to the production of the membrane, these symptoms abate on the fifth day, and the discharge gradually diminishes and disappears on the ninth or tenth day.

That the intensity of the inflammation produced depends upon the strength of the infusion and the frequency of its application, is well illustrated by experiments recently made upon rabbits by Dr. Moura Brazil, of Rio Janeiro (*Annals D' Oculistique*, December, 1882). He employed an infusion of the strength of one gramme to 20 grammes of water, applying it directly to the animal's conjunctiva, and also bandaging the eye with it. The effects were severe from the first, and on the second day there was great œdema of the conjunctiva with violent inflammation, thick false membranes formed, and on the fourth day, the cornea became whitened and rough to the touch; there was a profuse purulent discharge; the lids became greatly swollen, and the parotid and submaxillary glands were greatly engorged, making it difficult for the animal to eat. On the fifth day the false membrane had disappeared, and the conjunctiva was coriaceous. Everything was done to combat the inflammation: cauterizations with argent. nit. (2 grammes to 100 of water); iced compresses of a solution of borate of soda (2 grammes); carbolic acid (50 cent.) in water (500 grammes), and all without benefit. The inflammation progressed; the cornea became sphacelous; the globe of the eye suppurated; the lids were gangrenous; the skin covering them fell off to a great extent, and the submaxillary gland suppurated. The poor victim of this experiment still lived.

That there is danger in the employment of the stronger infusions, is also shown in a little memoir upon the employment of jequirity, published in 1867, by Dr. Castro E. Silva, of Ceara, Brazil, in which he relates several disastrous cases of jequirity ophthalmia occurring in the provinces of Ceara and Piauhy, where the use of the drug is much abused. There one often sees violent inflammation of the lids which extends to the face, neck, and upper portion of the thorax, the submaxillary glands often taking on an intense inflammation, which ends in suppuration.

The popular lotion seems to be the curative one, as can be seen in the following cases in which I have employed it.

Case I.—C. T., aged twenty-four; machinist; came to the Eye and Ear Infirmary in November, 1882, suffering from dense pannus, with granulations of the left eye. The disease had been of three years' duration, and vision was reduced to perception of shadows. He had been treated for six months in Detroit and Milwaukee by oculists of repute, but with little benefit. I treated the case two months, employing the usual remedies; cupri sulph., argent. nit., and iodoform, but with no great

improvement. He was then admitted to the hospital, and the treatment with the infusion of jequirity was instituted; the effects following its use were the same as already described, and the patient was discharged on the thirtieth day from the commencement of the treatment, with V. $= \frac{20}{C}$, and able to read large print.

CASE II.—Hattie R., aged fifteen; trachoma of three years' duration, has been treated without success during the last ten months; the conjunctiva of both upper and lower lids was covered with large, easily bleeding granulations, separated by deep sulci; left cornea had a thick pannus; sight was reduced in left eye to perception of large objects. Upper half of right cornea was covered with a pannus, and in this eye sight $= \frac{20}{C}$. Jequirity treatment was begun January 10th; and on February 15th the patient left the hospital free of granulations, and the corneæ sufficiently clear to give V. L. $= \frac{20}{C}$, V. R. $= \frac{20}{XL}$.

CASE III.—Katie R., aged nine; inmate of orphan asylum. A case of intractable follicular conjunctivitis of both eyes of five months' standing. Corneæ vascular, V. R. $= \frac{20}{C}$, V. L. $= \frac{20}{CC}$. On the 12th of January, three applications of jequirity were made, and on the following day two more, which were sufficient to develop the purulence with the false membrane. The hypertrophied follicles became paler after the seventh day, and had disappeared altogether on the twenty-fourth day, when V. R. $= \frac{20}{L}$, V. L. $= \frac{20}{XL}$.

CASE IV.—A man, aged forty, came to the hospital in December, 1882, with a subacute vascular keratitis of the right eye, of three months' duration. The bloodvessels on cornea were large; opacity great; superficial marginal ulcer above; conjunctiva of upper lid much swollen, especially at retrotarsal fold. S. reduced to counting of fingers at ten inches. Was treated for one month with eserine, hot aromatic compresses, etc., but with only slight benefit. The jequirity treatment was instituted January 15, 1883, and at this date, one month later, the cornea has cleared so that he has V. $= \frac{20}{C}$.

NOTE.—The infusion should be prepared from fresh beans, as when old they lose their efficacy. Those which I used in the above cases were obtained from "The Pharmacie Robinet," 55 Rue Cherche-Midi, Paris.

UTERUS SEPTUS BI-COLLIS.

BY HOWARD A. KELLY, M.D.,
RESIDENT PHYSICIAN AT THE EPISCOPAL HOSPITAL, PHILADELPHIA.

J. K., a servant, born in Germany, thirty-six years of age, applied at the Episcopal Hospital on the ninth inst. for relief.

She complained of constant pain across the small of the back, following a fall last summer; she also gave a history of severe pains at every menstrual period since the first at fifteen years of age, although regular as to time, duration, and amount of discharge.

The vaginal canal, upon digital examination, is long, and up in the right-hand corner of the cul-de-sac, posteriorly, a small hard os is detected. The cervical canal can scarcely be felt. The fundus uteri is felt through the anterior vaginal wall above the os. No view of the os can be obtained by the shorter Goodell speculum, but while manipulating the instrument for a more satisfactory view, a fleshy column comes into view, lying close against the right vaginal wall. The general appearance of this column—long and narrow in the middle, with broader bases on the anterior and posterior walls, whose fibres arch outwards to the right and left—suggests its being a septum, which is then brought into view with the blade of the speculum on either side. The vaginal cul-de-sac is divided by this septum into two equal parts, having no inter-communication.

Further digital examination reveals at the bottom of each half, lying in the angle between the septum and the *posterior wall*, a small hard os. These are each readily brought into view and embraced by a Fergusson speculum of one-half inch calibre.

The external sexual organs are well developed. The hymen hangs in thick, rosy-red, fringe-like folds which meet in the centre of the canal, not, however, diminishing its calibre.

The free border of the septum lies two and three-eighths inches from the fourchette, just back of the well-marked rugæ vaginæ. It presents the appearance described. On its left border at about the middle hang several small papillary eminences. The septum measures one and three-eighths inch from its free border to the base, where it rounds off to either side to embrace each os.

The cervical canals appear to be well separated. The sound passes two and three-quarter inches anteriorly into each, and upon rotation reduces the flexion of the broad-bodied uterus.

Rectal examination adds nothing of interest.

Jan. 1–9.—Patient is now menstruating freely, and equally from each os; shreds of bloody tissue hanging out of the cervical canals.

She was examined once in Germany, per vaginam, by a physician, who remarked upon nothing unusual. She has never been examined in this country up to the present date. It is interesting to add that she has never experienced sexual desire.

The case has been seen by Dr. Hopkins and by Dr. Morris Lewis, chief of the ward, and it is through his kind permission that I am able to present this report.

HOSPITAL NOTES.

BOSTON CITY HOSPITAL.

Service of W. C. B. FIFIELD, M.D.

NON-UNION OF THE TIBIA AFTER OSTEOCLASIS; RESECTION AND WIRING OF THE BONE; SUCCESS.

(Reported by ROYAL WHITMAN, M.D., House Surgeon.)

THE patient, a girl, five years of age, entered the hospital June 13, 1882, with the following history:

Since birth her limbs had been slightly distorted, and about two years before her admission to the hospital, her mother, thinking that the deformity was increasing, had taken her to the Children's Hospital, where she was admitted on August 30, 1880. Examination showed more or less bowing of the arms and legs—otherwise the child appeared to be in good condition. Osteoclasis was then performed on the left tibia, which was fractured at about the junction of the lower and middle third. The leg was then straightened and placed in a plaster bandage. On October 10th, the right lower leg and right lower arm were also fractured and placed in stiff bandages. They united in good position in a few weeks. The left leg, however, did not unite firmly, and there was also a considerable projection forward of the tibia at the seat of fracture, and on March 24, 1881, it was again fractured at the point of partial union and the tendo Achillis was also cut. The leg was straightened and placed in a plaster bandage. On April 19th there was no formation of callus. May 24th, there was partial union, but with bowing forward of the tibia. She was then discharged from the hospital, and during the following summer was treated in its out-patient department, the leg being kept in stiff bandages. In November, 1881, she again entered the hospital, and during the following winter was treated with a steel support, an attempt being made to straighten the leg by pressure with pads. On February, 1882, there was no improvement, and she was discharged wearing the apparatus. From this time until she entered the City Hospital, there was no change in the condition of the limb. At the time of her admission, the examination showed the following results: The child was well nourished. Her limbs, other than the left leg, were quite straight, and presented no evidences of the previous operations.

There was a considerable bowing forward of the left tibia, and at the seat of the former operation there was considerable mobility. The child walked with a marked limp and the leg was considerably atrophied from disuse.

On June 13, 1882, Dr. Homans, refractured the leg at the point of non-union, and it was straightened and placed in a plaster bandage.

On July 9th, the plaster bandage was removed, but only a moderate amount of union was found to be present, and the leg showed a decided tendency to return to its former faulty position.

July 15th, Dr. Homans again broke down the adhesions between the extremities of the bones, and the leg was again placed in a stiff bandage. She was kept in bed until August 25th, when she was allowed to get up and to walk about with the leg still encased in the plaster bandage, in the hope that the irritation might cause a firmer callus.

On September 12th, the stiff bandage was removed and the leg was found to be in nearly the same condition as upon her entrance.

And taking into consideration the fact, that the child had been under treatment for more than two years without benefit, and as the leg was much atrophied from disuse, and as there seemed to be no prospect of any immediate improvement, it was decided that a more radical operation was justifiable, and, on October 20, 1882, Dr. Fifield, with full antiseptic precautions, made an incision over the point of non-union; the thickened periosteum was separated from the bone, which was refractured. The bone at this point was found to be in a state resembling chronic inflammation, the bone being thickened and the medullary canal almost obliterated. A thin wedge-shaped portion of bone—the base of which was anterior—was sawed from either extremity of the bones in order to counteract the bowing forward. The extremities of the bone were then firmly united by a strong silver wire. The periosteum was then brought over the bone and held in position by fine catgut sutures. The skin was brought together with several silk sutures. A Lister dressing was applied and the leg was placed in a post-plaster splint. No constitutional disturbance followed the operation. The dressing was changed three days later and the stitches were removed. The silver wire was removed on December 7th, at which time there was firm union, and the leg was in good position. December 25th, the child walked well with slight limp. She was discharged on February 14, 1883. At this time she still retained a slight limp, which was disappearing, the leg was increasing in size, and there was no tendency toward bending at the point of fracture.

This case is interesting, as showing a possible result after the operation of osteoclasis, and also interesting as showing the rapid recovery of the child after the comparatively severe operation.

MEDICAL PROGRESS.

Action of Narcotics.—Brown-Séquard thinks that narcotics exercise a sedative effect only by producing *cerebral inhibition*. Opium, for example, produces sleep, not because it possesses the power of producing sleep, but because it is an energetic excitant of the sensory nerves, from which the clinical fact appears that it is not only necessary to consider beforehand the dose, but also the place of application. In fact, a small quantity of morphine injected into the neck, at the level of the superior laryngeal nerves, produces general analgesia much more effectually than if injected at some other point. In this case the local action of morphine is comparable to that of carbonic acid injected into the larynx. It is doubtless to this same mechanism, excitation of the sensitive nerves, that the cessation of violent attacks of cough is to be explained, after subcutaneous injection of pure water into the front part of the neck.—*Le Progrès Méd.*, March 24, 1883.

Calcification of the Kidneys in Acute Corrosive Sublimate Poisoning.—MM. J. L. Prevost and G. Frutinger have concluded, from numerous experiments on mammalians, with corrosive sublimate, that a true calcification of the kidneys takes place, there being at the same time a decalcification of the bones, so great in two cases, that the epiphyses were movable on the diaphyses. It is often so marked that the kidneys seem petrified. Large doses produced it more readily than a succession of small doses.—*Revue Internat. des Sciences*, February 15, 1883.

Abscess of the Frontal Sinus; Recovery.—This case occurred in the service of M. Marc Sée, at the Municipal Health Hospital, Paris. The patient, æt. 64, had a small tumor, situated at the internal part of the superciliary arch, on the left side. For fifteen years she has been subject to colds in the head, and lately the nasal discharge has had a fetid odor. There is no evidence of scrofula. In September, 1882, vision on the left side became obscure. She suffered, after that, with frontal and temporal headache, and, at the same time, noticed a small tumor, which disappeared on pressure. M. Sée diagnosticated abscess of the frontal sinus, and operated on November 17. He made a small incision parallel to the arch of the brow, and a little above it. The pus having escaped, he scraped the sides of the cavity, and put in two small balls of charpie soaked in chloride of zinc solution, and dressed the wound antiseptically. The charpie balls were retained two days, and then carbolic acid solution injections were made, morning and evening,

for several days. When last seen, January 15, 1883, the woman was entirely well. Abscess of the frontal sinuses is a rare affection, more especially if non-traumatic, or without syphilitic antecedents. — *L'Union Méd.*, March 13, 1883.

OPERATION FOR DETACHED RETINA.—DR. J. R. WOLFE, F.R.C.S.E., Senior Surgeon to the Glasgow Ophthalmic Institution, advises that in cases of detachment of the retina, a vertical slit be made with scissors into the conjunctiva and subconjunctival tissue, laying bare the sclerotic at a point corresponding to the site of the detachment. The lips of the wound are separated by two small strabismus hooks, and the assistant steadily maintains the position of the eyeball, to prevent the exposed portion of the sclerotic from shifting; the sclerotome is then introduced into the sac. The incision through the sclerotic is made obliquely, in such a manner that the edges of the scleral wound should overlap each other when the instrument is withdrawn, and not remain gaping. Gentle pressure is made on the eyeball in the track of the receding lance by means of a fine spatula. The lips of the external wound are brought together with one or two fine silk ligatures, and both eyes are strapped with court-plaster. The patient is kept in bed, in a dark room for three days. The plaster and ligatures are removed on the sixth day, and the eye is gradually accustomed to the light. On the eighth day the result may be tested. Before resorting to the operation, says Dr. Wolfe, we must ascertain (1) that there is no opacity or softening of the vitreous, or at any rate, if present, that it is not general, but confined to the region of the detachment; (2) that the retina is healthy; (3) that the effusion is purely serous; (4) the exact site of the detachment. He reports five cases in which this operation has been successful.—*Practitioner*, March, 1883.

ELONGATION OF NERVES IN ATAXICS.—M. LÉPINE has reported to the Society of Biology his results from subcutaneous elongation of the sciatic nerve in a number of cases. After having tried unsuccessfully Langenbeck's and Débove's operations, he used the following: The lower limb being extended, the thigh was slowly and forcibly flexed on the trunk; this manœuvre being repeated every day for several weeks. After a time, modifications of sensibility and increased temperature are observed in the limb operated upon, and sometimes in the other. The patient complained of formications in the foot and leg, and there was marked diminution of the tabetic phenomena, shooting pains, and motor incoördination. There were no injurious effects.—*Le Progrès Méd.*, March 24, 1883.

GASTROSTOMY.—M. TILLAUX reported to the *Societé de Chirurgie*, the case of a man, æt. fifty-two, without syphilitic history, no local phlegmasia from the ingestion of corrosive liquids, who entered his service in 1881, with a very small fibrous stenosis seated about seven inches below the cricoid, and almost one-half inch wide. He left the hospital, and reëntered in February, 1882; was pale and dysphagic. M. Tillaux tried, once only, to pass a very small olive-point, and failing, decided to perform gastrostomy. The greater curvature of the stomach did not extend beyond a horizontal line drawn between the cartilages of the ninth and tenth ribs. If, from that line one is drawn on the right side along the anterior border of the liver, and another on the left following the line of the costal cartilages, they will bound a triangle corresponding to the seat of the stomach. M. Tillaux made an incision parallel to the costal border, about two and a half inches long, not passing beyond the horizontal line described above. Seventeen sutures were made, and the wound closed. The patient did well until the twelfth day, when he refused to eat, gradually became worse, and died on the forty-seventh day. At the autopsy fibrous contractions and solid cicatricial adherences existed between the stomach and the abdominal wall.—*Journ. de Méd de Paris*, March 24, 1883.

NITRITE OF SODIUM IN ANGINA PECTORIS.—DR. MATTHEW HAY, Demonstrator of Materia Medica in the University of Edinburgh, has used the nitrite of sodium very satisfactorily in a case of angina pectoris. So far as he is aware, this is the first case of angina pectoris in which a simple nitrite has been used. He thinks that it is as active and reliable as nitrite of amyl, or nitro-glycerine, at the same time possessing distinct advantages over either of these, notably in producing, in therapeutic doses, no disagreeable general effects—headache, giddiness, and even partial collapse. The objection to it is its tendency, in large doses, to produce eructations of nitrous acid gas, which, however, does not occur when small doses are administered. The formula used by Dr. Hay was: ℞. Sodii Nitrit., ʒss; Aquæ, ad ʒxij. Solv. S. Dose, one or two teaspoonsful.—*Practitioner*, March, 1883.

ROLE OF THE LYMPHATIC VESSELS IN PATHOLOGICAL PHENOMENA.—M. A. GUÉRIN has made this the subject of a paper read before the *Acad. des Sciences*. He shows, by a series of experiments, in accord with the views of Sappey but contrary to the opinion of some microscopists, that the lymphatics anastomose with the terminal arterial ramifications, and that a liquid, analogous to the serum of the blood, can pass directly from the arterial into the lymphatic system. This communication of the two systems is especially important, as explaining certain pathological phenomena. It seems from this that it is the invasion of the lymphatic territory by blood globules which constitutes the first phenomena of suppuration. Thus, when the pleura is inflamed, the lymphatics are quickly obliterated. It is by these numerous networks covering the surface of the lungs that the phenomena commence, and one attempts in vain to inject these on the lung of a person recently dead of pleurisy. If the lymphatics are also the agents of absorption of the pleuritic effusion, it is easily seen that this absorption cannot take place while they remain impervious; and it is doubtless on this account that we see pleuritic effusions resist the most energetic treatment, and then disappear in a few days when the absorption vessels become pervious.—*Révue Scientifique*, March 24, 1883.

URÆMIA OF HEPATIC ORIGIN.—M. DÉBOVE read a note before the *Soc. Méd. des Hôp.* on this subject. According to Brouardel, the urea is diminished in hepatic disorders. Débove's researches confirm this, though he interprets the fact differently from Brouardel. The diminution of the amount of urea may be explained by two theories: some difficulty of excretion of urea in the kidney, or some fault of formation in the liver. The latter theory has been adopted by Brouardel and most other authors. To prove it, he has attempted to show that the blood-urea (as opposed to the urine-urea) is equally diminished, and consequently the liver makes a smaller quantity of it; but Débove's experiments do not confirm this. As a result of his researches, Débove thinks that, from a therapeutic point of view, there is indication to determine polyuria in patients affected with grave icterus, in order to facilitate the elimination of extractive matters, such as have been recognized by Brouardel, A. Robin, Mossé. He thinks that this should be done in all cases of icterus.—*Journ. de Méd. de Paris*, March 24, 1883.

THE MEDICAL NEWS.

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SATURDAY, APRIL 14, 1883.

KOCH AND HIS AMERICAN CRITICS.

AT the end of a year from the reading of his original paper on the Etiology of Tuberculosis, Koch reappears in print (*Deutsche medizinische Wochenschr.*, March 7th) in reply to his critics. The publications, he says, which do not confirm his views are so few that he might well pass them over in silence, especially as they all show for their authors either a complete or very considerable ignorance of bacteria-investigations, or incapacity for estimating the relations of pathogenetic bacteria to infectious diseases. Altogether without previous knowledge or experience in easier tasks, they have undertaken this difficult question; hence it is not to be wondered at that they have produced such defective work.

Taking up, first, American critics, Dr. Koch might have spared himself any allusion to Ephraim Cutter and Rollin R. Gregg, whose criticisms betray their incompetency to discuss the question, and in this country, at least, fail to attract any serious attention. Schmidt's unfortunate error with his fat-crystals is only saved from being equally discreditable to American investigation by the manliness with which the New Orleans histologist admits his mistake.

"An equally capable microscopist with Schmidt," says Koch, "appears to be Formad." Notwithstanding this, he fails to discover the bacillus in the sputum of a number of phthisical patients, although extensive destruction and cheesy alteration had taken place in the lungs. Besides, he denies that the bacilli of tuberculosis present any peculiarities in their behavior towards staining solutions, as contrasted with other bacteria. "Whence there can be no doubt," says Koch, "that Formad has not found the tubercle bacillus at all;" and, finally, "that Formad's judgment as to the significance of tubercle-bacilli is not worthy of attention until he has learned to recognize them with certainty; until he has made himself familiar with current literature, and especially the intra-ocular inoculations of Cohnheim and Salomonsen, of Hänsell, Schuchardt, Baumgarten, and Damsch; and until he has so far progressed in the experimental technique that his animals inoculated with wood, glass, and metal no longer die of tuberculosis; or, at least, until he can distinguish whether an animal has died spontaneously ill of inoculation-tuberculosis."

In the charge of incompetence against Formad, involved in these statements, Koch goes too far. For any one who reads thoroughly Formad's paper, cannot lay it aside without feeling that its author knows what he is talking about, whatever may be his errors; and the assertion that he cannot recognize the tubercle-bacillus when treated according to Koch's own method is a gratuitous assumption. This being the case, it is hardly likely that Koch will accept the testimony of those acknowledged in this country to be experienced microscopists, who, familiar with Dr. Whittaker's specimens fresh from the laboratory of Koch, after examining the preparations of Formad alongside of those of Schmidt, promptly said of the former, these are the real tubercle-bacilli, and of the latter, these are fat-crystals.

Formad does not deny that the bacillus is found in the sputum of phthisis, as Koch would have us infer. On the other hand, Formad says, "There is consequently no doubt of the existence of this organism in the sputa of patients suffering from this disease." He only says that, "in examining the sputa of a number of undoubted cases of pulmonary phthisis from the Philadelphia Hospital, I was unable to detect the bacillus *in a certain number*," and not *in a number of cases*, as Koch puts it.

As to the morphology of tubercle-bacilli, and their behavior with staining fluids, we have a direct issue between the two observers, in the decision of which the greater experience of Koch must be allowed a proportionate weight; although Spina, who must also be acknowledged to be a less expert mycologist, agrees with Formad. It is, however, an interesting fact that in both instances (the only ones so far as we know) in which the experiments of Koch have been systematically repeated by pathologists, their conclusions have been contrary to those of Koch. For although Spina's reputation is chiefly as a histologist, it is impossible for him to have been working under Stricker's eyes for thirteen years without becoming also a pathologist. It is a nota-

ble fact, too, which Koch mentions, and as to which he expresses himself disappointed, that his results have been tested by few pathological anatomists upon whose territory they more especially trench, and that his investigations have rather attracted the attention of clinicians.

It is true that Formad makes no reference to the important intra-ocular (iris) inoculations of Cohnheim and others above referred to. Koch's adherents lay particular stress upon what they term Cohnheim's conversion to Koch's views through these intra-ocular inoculations. But they overlook the fact that Cohnheim's two series of experiments, viz., the first proving the non-infectiousness of tuberculosis and the second denying it, were not identical; the first being inoculations with indifferent substances into the *peritoneum*, and the second into the *eye*.

In the matter of tuberculosis being produced by the introduction of indifferent substances—glass, wood, and metal—Koch says Formad is behind the times, and that he holds the position occupied in Waldenburg's time, fifteen years ago, a position which has been overthrown by Cohnheim and Salomonsen's results. But Formad's voice is not the only one which, at the present day, sustains this old-fashioned doctrine. For not only Spina, but also Stricker, reaffirms so recently as March 16, 1883 (see *Wiener medizinische Presse*, March 18th), that "one may, with numerous indifferent substances, produce as true a tubercle as by means of tuberculous material taken from human lung." Stricker also states in the same connection that he "has tested and approved the assertion of Spina, founded upon a historical and experimental basis, that the inoculation-experiments of Dr. R. Koch, of Berlin, have not, in the least degree, contributed to prove the contagiousness of tuberculosis."

Formad's position that tuberculosis depends upon scrofulosis, and that there are scrofulous animals which may be inoculated with tuberculosis, and non-scrofulous which may not be inoculated, Koch meets by asserting that cats, which Formad places in his non-scrofulous category, are in his hands easily inoculable. Here again is fact against fact, assertion against assertion, and the question must be settled by third parties. At the same time, Koch practically admits such a subdivision exists when he says that white mice and dogs are both infected with difficulty, while Guinea-pigs and rabbits are infected with ease.

Koch fails to answer Formad's question why he invariably inoculated into the peritoneal cavity when he experimented with cats, dogs, and rats, and why he inoculated indiscriminately into any part of the body, animals like the Guinea-pig and rabbit, well known to possess a peculiarly scrofulous tendency; for it has been repeatedly shown by the experiments even of Cohnheim, as well as of Stricker and others, that the introduction of indifferent substances into the peritoneal cavity of non-scrofulous animals is followed by true tuberculosis, while the same substances introduced under the skin of these animals is totally without effect. A parallel to this is found in man, in the clinical fact that a pleurisy may terminate in a miliary tuberculosis in one in whom a phthisical history cannot be traced.

Of Sternberg, Koch disposes summarily by saying that because he could not find the bacilli he denied their existence, and it is to be hoped that in the mean time he has discovered his error.

So much for American literature. In our next issue we will consider Koch's German critics.

FAT-CRYSTALS IN THE URINE.

THE much-disputed question as to whether fat-crystals ever appear in urine would seem to have been settled by the observations of PH. KNOLL, who found (*Centralbl. für die med. Wiss.*, February 3d, from *Prag. Zeitsch. f. Heilk.*, iii. s. 148), in the freshly passed urine of a patient dying of subacute chronic nephritis with uræmic symptoms, a number of spherical, oval, cylindrical, and sometimes peculiarly constricted cells, filled with smaller and larger drops, whose fatty nature was shown in their behavior by transmitted, reflected, and polarized light, as well as by osmic acid staining. Many of these cells were beset with regular rhombic, pointed and delicately contoured plates, which, when seen on their edges, appeared like needles. They were soluble in ether, but unaffected by acids and alkalies. The urine was turbid, and contained casts, numerous white and some red corpuscles.

Microscopic examination of sections of the large white kidney derived from this case, revealed almost the same crystals—fewer of the long plates, but more numerous druses of smaller plates and needles. They were less numerous in the medulla than in the cortex, and in the latter situation they were present more particularly in the medullary rays; scarcely at all in the glomerules, and only occasionally in the interstitial tissue.

THE AMENDED BILL FOR THE LEGAL PROTECTION OF THE INSANE.

IN our issue for March 17th, we alluded to the bill relating to the above subject, now before the Legislature of Pennsylvania, commending most of its provisions and suggesting some important amendments. The bill as amended by a conference of those interested in the subject is now before us, and while in some respects improved, it still lacks the most important provisions we alluded to; and in some particulars is worse than it was before, for the

changes are in the direction of *less* rather than greater protection of the alleged insane.

Very properly, the State Board of Public Charities has been placed in a more intimate and authoritative relation to the matter. But why on general principles any established hospitals should be exempted from taking out a license, we fail to see. True, the control over such excepted hospitals by visitation and inspection is retained, but the chief means of securing their proper administration is swept away. In the case of licensed institutions, public and private, the Board may revoke the license if they find sufficient cause so to do, but such control is denied them in the case of the excepted hospitals. If this be on legal grounds as an interference with vested rights, we suppose it must be submitted to, but it is none the less to be deplored. No institution ought to be exempted from such control; and any institution that objects to it is *ipso facto* the more to be suspected.

Again, the provision for visits of inspection and investigation once a month is omitted. While an "effectual visitation" is prescribed, it is left to the Board to determine how frequent this shall be. The number of persons allowed to visit an alleged lunatic is no longer indeterminate, but is cut down to "two proper persons," and the report on each case to the Board is to be made once in six months, instead of once in three.

Correspondence is simply to be "stamped and mailed," the word "daily" being omitted—a most important omission; and no provision is made, as in the English law, for forwarding indecent or improper communications to the Board, instead of to the person addressed.

The Committee in Lunacy, of which but one member is necessarily a doctor, still has power of summary discharge; and the medical officer of the institution must make his diagnosis within twenty-four hours; and voluntary patients are still not allowed to enter for a longer period than seven days; all of them defects which we previously pointed out.

We earnestly hope that these suggestions will receive consideration before the bill is put upon its final passage.

THE DEATH OF SURGEON-GENERAL BARNES.

We print elsewhere an obituary notice of General Joseph K. Barnes, late Surgeon-General U.S.A., a physician whose career has been, as truly stated in the General Order announcing his death, "one of honor to himself, and of great service to his country."

It is largely due to his personal influence and administrative ability that we possess the *Medical and Surgical History of the War*, the Army Medical Museum, and the invaluable Medical Library of the Surgeon-General's Office.

The secret of his success is an open one, yet it is one which comparatively few can grasp and apply; it consisted in quick perception in selecting the right men for different kinds of work, in giving the men thus selected ample powers and responsibility, and allowing them full credit for the results.

He did not try to supervise all the details of the work of his department, a mistake which too many bureau officers are apt to make, but gave each of the officers under him an opportunity to develop his work in his own way, subject of course to the approval of his chief.

He had no thirst for personal notoriety, and his subordinates felt that while they would be held responsible for the completeness and correctness of their work, they might be sure of his support so long as that work was well done.

Under his administration the Medical Department of the United States Army has become the best organized and best supplied of any similar department in the world; and the satisfactory working of the machinery is best shown by the fact that upon his retirement it went on without a jar.

The medical profession of this country owes him a debt of gratitude for the work done for it under his direction; and although he was neither a writer nor a teacher, his name will live in the annals of medicine of this country as that of one who made substantial contributions to its advancement.

THE NATIONAL MEDICAL LIBRARY.

The letter from our special correspondent at Washington, which appears in another column, brings up a matter which is of great interest and importance to the medical profession of this country, and concerning which it is time that some systematic action was taken.

The experience of the last session of Congress shows that our Representatives and Senators will give heed to the wishes of the medical profession of the country, when these are tolerably unanimous and clearly expressed. There can be no doubt that the physicians of the United States, with scarcely an exception, desire that the library of the Surgeon-General's Office should remain under its present management, and would regard its transfer to and merging with the general library of the Nation as a calamity.

Let it be considered as the medical section of the National Library, let the number of volumes it contains be counted as part of the National Library, but let it be kept in connection with the medical museum, which naturally belongs to it and has special need of it, and under the expert management which has made it what it is.

What the library needs, and what the medical profession of this country should strive both individually and collectively to secure for it, are the following:

1. A commodious fire-proof building to contain the library, museum, and medical records.

2. An increase of the annual appropriation for the library, so that it shall be able to obtain every new medical book, pamphlet, journal, or transaction from all countries as soon as published, and shall also have some funds to complete its collection of old books as opportunity offers. The amount necessary for this purpose is estimated by the librarian to be $10,000 a year, independent of the amount necessary for the museum, and this estimate appears to us to be moderate and reasonable.

3. Authority to complete and print the *Index Catalogue*.

We commend this matter to the attention of the American Medical Association at its next meeting. It ought to have a Standing Committee to look after the interests of the medical profession in this respect, and to see to it—first, that our National Medical library is properly managed; and second, that so long as it is properly managed it shall not be swallowed by an ambitious librarian who knows nothing of medical matters, nor be crippled through mistaken ideas of economy by reduction of its appropriations, nor be left in a crowded and insecure building as it is at present.

A POOR PAYMASTER.

WE have often been impressed with the disproportion between the amounts paid to lawyers and doctors for professional services. No better illustration of this can be found than in the payment of the lawyers in the Star Route Trials, and the doctors who so intelligently served the government in the Garfield and Guiteau cases. We have already referred to the indignities heaped upon our profession in connection with these cases, and it only remains for us to condemn the carelessness and disinclination of the government officials to assume any responsibility in the payment of medical men who are engaged.

In the case of President Garfield we were humiliated to find that the nurse was paid almost as much as either Dr. Agnew or Dr. Hamilton. In the Guiteau case the comparison is almost as bad. With the exception of two or three favored medical men, the large number of distinguished experts summoned from all parts of the country received but twenty-five dollars a day. The personal loss to them was in some cases very great. One of these gentlemen by his enforced absence, we are informed, lost over two thousand dollars from his professional income, and another who was under engagement to deliver a course of medical lectures, was out of pocket to the extent of six hundred dollars. Other experts were equally unfortunate.

In this case the bills were referred to the District Attorney, Colonel Corkhill, for adjustment, and when it is stated that the compensation given for an equal amount of labor varied from $2,000 to $600, and that a local physician, who was on the stand not over ten minutes, received $200, the basis on which the compensation was calculated is difficult to understand.

In future we advise every medical man engaged by the Government to make his terms before-hand, or not to go to Washington at all.

We are in receipt of a letter from E. H. Hyatt, M.D., "Member of Faculty and Board of Trustees" of the Columbus Medical College, of Ohio, requesting us to publish "the action of the Illinois State Board" in the matter of the alleged irregularities of the Columbus Medical College, and so much of his letter "as will explain the causes which led to the investigation by the said Board." We have already, in our issue of March 3d, published these causes, which were charges by the West Virginia State Board of Health against the Columbus Medical College for the issuing of the Dent diploma, the circumstances of which were so recently narrated in our columns as not to require repetition. In the same issue we criticised the Illinois State Board, for not having mentioned this complaint in its published proceedings. We thought its action, when considered in connection with the recent accession to office of Gov. Hamilton, the nephew of Dr. J. W. Hamilton, the Dean of the Columbus Medical College, was calculated to place the Illinois Board in an equivocal position.

It seems that these charges were presented to the Illinois Board, and, two members of the Faculty of Columbus College being present, it was resolved, "that, while said College committed an irregularity in granting a diploma to A. M. Dent, that irregularity does not seem to warrant this Board in refusing to recognize other diplomas of said College." This can scarcely be considered as much of an endorsement of the Columbus Medical College, and it certainly does not alter the situation in unprejudiced eyes. The reputation of a medical college is not to be made or destroyed by resolutions of State boards of health. If a good reputation is desired, the only method to secure it is to adopt proper regulations as to curriculum, duration of study, and method of examination, and to live up to them. The publication of resolutions of the kind adopted by the Illinois State Board, which advertise the college while they condone its faults, will have but little weight with the community.

The New Code Controversy has broken out in New York with renewed vigor, as will be seen on reference to another column. The adherents of the National Code have awakened from their apathy, and the advocates of the New Code are aroused by the adverse vote at the late meeting of the New York County Medical Society. Both sides are rapidly organizing for a vigorous contest in the State Society next February. In the mean time, circulars are being distributed, and pledges received, and the issue is becoming sharply defined all over the State.

REVIEWS.

Quain's Elements of Anatomy. Edited by Allen Thomson, M.D., D.C.L., LL.D., F.R.S., Edward A. Schafer, F.R.S., and George Dancer Thane. Ninth edition, 8vo. 2 vols., pp. xiii. 748 and ix. 947. New York: Wm. Wood & Co., 1882.

It would be difficult to find just the counterpart to "Quain's Anatomy," as to age, authority, popularity, and completeness. Nine editions are rarely seen on either side of the water, at least in scientific works, and the two portly volumes which now make up this valuable work, are at once a witness to the extent of the Science of Anatomy and the thoroughness with which it is here treated.

The student will get not only a full knowledge of gross or macroscopic anatomy, but will also obtain a sufficient knowledge of microscopic anatomy as well, together with pretty full outlines of embryology, a department of which, in general, the profession is far too ignorant. Variations of structure, and superficial anatomy also are treated quite freely.

The editors are to be congratulated upon the admirable manner in which they have accomplished their work. Both letter-press and illustrations are good. Though bearing an American imprint, the work, save the title-page, is English.

SOCIETY PROCEEDINGS.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Stated Meeting, April 3, 1883.

The President, Alfred Stillé, M.D., in the Chair.

Dr. Wm. Barton Hopkins presented a report of a

CASE OF RESECTION OF THE RADIUS PERFORMED BY DR. JOHN RHEA BARTON, IN 1828.

This patient came under observation a month ago, at the Episcopal Hospital, where she came with her son, who had received an injury of the head.

The account which she gives of an operation performed upon her, fifty-four years ago, by Dr. John Rhea Barton, is as follows:

She says that when she was ten years of age she was taken to the Pennsylvania Hospital, for a disease of the forearm, which, it was thought, followed a sprain of the wrist. Dr. Barton placed her arm upon a table, and, with an instrument which cut at both ends, made an incision, and by scraping and cutting removed a long piece of bone full of small holes, like a honeycomb, and containing a large cavity in its centre. He told the students present at the operation that he did not expect new bone to form, but that a gristle-like substance would take its place. She remained in the hospital until the autumn, and in a few months after her discharge regained to a great extent the use of her hand.

In studying the condition of the parts as they now present themselves it will be of interest to note the main causes which have brought about the usefulness of the hand, the changes in position and function of the parts not involved in former disease, incident to the removal of so important a structure as the entire or almost entire diaphysis of the radius, and the influence these alterations have had upon the growth and development of the bones and soft parts. The usefulness of the hand would seem to depend not only upon the preservation of the upper and lower epiphyses of the radius, the former through probable extension of the periosteum giving attachment to the biceps muscle, and the latter to the long supinator, but also upon the strong healthy character assumed by the skin investing the lower end of the ulna. This skin cap is the principal antagonist to the action of the muscles of the forearm, and if from constant pressure against the bone it had become thin and tender, as it very likely would have done, without the intervention of a bursal sac, every movement of these muscles would have caused pain, and the hand would have become almost useless.

The skin has, of course, yielded to a considerable extent, and the hand has, therefore, been gradually dragged up the forearm. The thumb from the loss of the origin of its long flexor, has become feeble and disused. The ulna has been made an active agent in support, and having lost its styloid process, presumably by absorption, the lower end has assumed a smooth knob-like appearance.

The growth of the sound bones has been comparatively little arrested, this being evidence that active work was performed by the hand during the growing years, which succeeded the operation. The humeri are the same length. The right ulna is one and a quarter inch shorter than the left. Part of this difference must be accounted for, however, by the absence of the styloid process, and part may also be due to a somewhat deficient development of the whole lower epiphysis in length, though not in breadth, as it is full and broad.

From measurements made of the ulna in connection with this case, the average length of the bone in females at the age of ten years is about seven and a half inches. In this case it is ten and a quarter inches upon the left side, and nine upon the right. The difference in the circumference in the middle of the arms is three-quarters of an inch; in the middle of the forearms, two inches; and of the hands, one inch; all in favor of the left or sound side.

The hand is set in an everted position well up the forearm, the tip of the middle finger being four inches and a quarter nearer the elbow than upon the left side. Although thus distorted and so loosely attached that it can be brought at right angles with the line of the ulna, it is remarkably strong, and with it she is capable of executing almost any movement.

Articulated with the carpus is felt the lower end of the radius. In its proper place the head of the radius may also be felt, continuous with which, and extending down the forearm nearly to the hand is a prolongation of fibro-cartilage, occupying the site of the excised bone.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 5, 1883.

The President, Fordyce Barker, M.D., LL.D., in the Chair.

After the reading and acceptance of various reports, Dr. Edward L. Keyes read a memoir upon his late

friend and teacher, WILLIAM H. VAN BUREN, M.D., LL.D.

Resolutions commemorative of the life, character, and death of Dr. Van Buren, and expressing deep sympathy with his bereaved family and friends, were drawn up by Dr. Austin Flint, Sr., and read by Dr. Austin Flint, Jr. These were seconded in a few well-chosen words, by Dr. Alfred C. Post, in response to a call from the Chair, and were unanimously adopted by the Academy.

The paper of the evening was by DR. BEVERLY ROBINSON, entitled

A CLINICAL STUDY OF THE ACTION AND USES OF CAFFEINE AND CONVALLARIA MAIALIS AS CARDIAC TONICS.

Until very lately, many of us were accustomed to regard digitalis as the essential, nay, almost the only real stimulant or tonic of the heart. True it is, we consider alcohol a powerful stimulant, and incidentally recognize that it gives the heart renewed power.

In ether and ammonia, we have also diffusible stimulants of considerable value, but their action is evanescent, and is not to be relied on if a continued or specific effect upon cardiac contractability is required.

In iron, quinine, and nux vomica, or its alkaloid strychnine, we have three very powerful corroborants. They restore appetite, make blood of better quality, add to muscular vigor, and rehabilitate, in a notable degree, the general system.

In coca, also, we have a powerful stimulant to the economy, that frequently will strengthen or give tone to the nerves in a rapid manner, that no other drug with which the author of the paper was familiar, can accomplish.

In belladonna we have the only drug which has hitherto taken the place, even in a moderate degree, of digitalis in its direct tranquilizing, and at the same time, strengthening, effect upon the heart. But belladonna appears to influence especially the cardiac plexuses and intra-cardiac ganglia, and to give immediate power to cardiac muscular fibres, as digitalis does.

Within the past year, two new drugs have claimed our attention as cardiac tonics: caffeine; and *Convallaria maialis*, or its glucoside, convallamaria. The object of the paper was to present what was actually known in regard to the nature, action, and uses of these agents, and also to accompany this with records of some personal cases, and the obvious deductions which can be made therefrom.

Caffeine, or citrate of caffeine, as it is improperly termed, is no new remedy, but not until after the labors of Gubler and other therapeutists was the attention of the medical profession specially directed to it as a cardiac tonic and regulator. Over digitalis it has certain evident advantages: 1. It has no tendency to cumulate in the economy, and hence to occasion poisoning effects. 2. It acts with greater rapidity than digitalis. In cases of asystolism when life is imminently endangered, this property may be of great value. 3. It rarely or never disagrees with the stomach. Four illustrative cases occurring in the practice of Dr. Robinson were then cited in detail.

The second part of the paper was devoted to the Lily of the Valley, or *Convallaria maialis*. This drug had been known for many years, especially its purgative quality, which was similar to aloes and scammony. The conclusion of Ott, in his investigations upon the physiological action of *Convallaria maialis*, were given in full, together with a synopsis of the views of the principal previous writers on the subject. Dr. Robinson then detailed his personal experience with the drug as a cardiac tonic, and gave the detailed histories of eight cases in which cardiac debility was a marked symptom.

Convallaria, possibly, was a stimulator of the cardiac muscles in its first period of action, whilst its after-effect may become of a paralytic order. Further, it is, after the manner of digitalis, a stimulator of the medullary inhibitory centres. In this latter action, no doubt, resides its special power to control dyspnœa and the symptoms of purely functional heart disorder, particularly paroxysmal palpitation and rapid and irregular heart action dependent upon debility (Trideau). It was further probable that *Convallaria maialis* is more potent in its action upon the pneumogastric trunks than it is in its direct influence over the cardiac muscular fibre.

A summary of cases seemed to show:

1. In caffeine and convallaria we have two efficient heart tonics.
2. Diuretic action of caffeine is more marked than that of convallaria.
3. Convallaria is well borne by the stomach of most patients suffering with chronic cardiac disorders.
4. When not well supported, rejection of medicine by the stomach is probably due to the uræmic condition already commencing.
5. As cardiac tonics, it is difficult, as yet, to assign a decided superiority to either of these drugs, they both giving increased cardiac power.
6. Cumulative effects do not occur from their continued use during a period of ten days or more.
7. Their power of restoring the rhythm to the cardiac pulsations and increasing the bulk of urine is not equal to that of the infusion of digitalis.
8. In the latter drug we have still the most efficient heart tonic and regulator which has been discovered.
9. Digitalis is a more powerful diuretic than caffeine.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, April 5, 1883.

THE PRESIDENT, R. A. CLEEMANN, M.D., IN THE CHAIR.

DR. W. GOODELL exhibited some

CALCAREOUS PARTICLES PASSED PER VAGINAM.

The previous history had been that of menorrhagia, and multiple fibroids were found in the womb. One of these fibroids had evidently taken on calcareous degeneration, and had subsequently broken down and discharged these fragments into the uterine cavity. He stated that these particles were not true bone, but merely the product of a disorderly deposit of lime, which possessed none of the osseous elements, not even cartilage-corpuscles. This calcareous degeneration tends to cure the disease by breaking off the vascular filaments of attachment and lessening the nutrition of the fibroid. In one instance, the specimen of which is now in the Museum of the University of Pennsylvania, he had seen three fibroids wholly converted into stone. These stones were, however, very light, and not like those of the bladder. It was the expulsion *per vaginam* of these uterine calculi which had greatly puzzled the older anatomists.

DR. GOODELL also exhibited two calculi, and related the following histories of two cases of

STONE IN THE FEMALE BLADDER ASSOCIATED WITH FISTULOUS CONNECTION WITH THE BOWELS.

The first case was that of a patient of Dr. C. A. McCall, who sent her to him in October, 1881. For the preceding four years she had suffered very much from vesical tenesmus; she frequently broke wind *per urethram*, and often passed through the same channel the seeds of raspberries, of tomatoes, and of pears. A year before Dr. Goodell saw her, she had voided a great deal of her urine per rectum for several weeks.

Dr. Goodell detected two stones in the bladder, and removed them. At once all the symptoms of fistulous connection between the bladder and the bowels disappeared, and the patient got well. This rapid recovery led him to think that there had not existed any fecal fistulæ, but that the vesical tenesmus was so great as to cause a rectal tenesmus, which was masked by the former, and that the seeds and wind were voided per rectum unconsciously by the woman when attempting to empty the bladder. But he had been led to change his views by the following case which he had seen with Dr. Wm. Corson, and which Dr. Ellwood Corson was kind enough to report for him. Misled by the first case, Dr. Goodell was not at first disposed to admit the existence of a fecal fistula, but from the subsequent history of the case there can be no doubt of it. In this case he believed that a pelvic abscess had burst into the bladder and also into the rectum or small intestines, which had established the communication between the two viscera. Like the first case, as soon as the calculus was removed the fistulous tract closed and the patient got well.

Mrs. R., American, aged fifty years, the mother of five children. For three or four years prior to November, 1881, she was troubled occasionally by the passage of small calculi, but her health was reasonably good, with the exception of backache and an almost constant pain in the right iliac region. She often expressed her belief that there was something growing in the right side. There was no tumefaction in that region, and her opinion was based on the pain and distress she felt. She never applied to her physician for relief of this suffering. She was also troubled with constipation. In November, 1881, she made a visit to the country, and took a long walk. On her return home she had a constant desire to urinate, and she then noticed, for the first time, that her urine had an unnatural color, and a very unpleasant odor. The quantity passed was not excessive. This condition continued for five or six days, when there occurred a sudden gush from the bladder of a very offensive mixture of pus and urine, accompanied by great pain and straining. Her pain and distress became so great, and was so augmented by being on her feet that she was compelled to remain in bed. After the free discharge occurred, the pain in the right iliac region ceased, and she has never had any return of it.

As she was troubled with constipation, she was directed to eat stewed prunes, and she soon noticed that the prune-skins came from the bladder, as did other articles of food, along with the urine. Every day she was troubled with the escape of gas through the urethra, and this gave her as much pain as the passage of solid matter. She says that she occasionally passed urine through the rectum. She became greatly emaciated, and was but partially relieved of her suffering by the constant use of morphia. Until Jan. 20, 1882, she was under the care of homœopathic physicians. On that date, Dr. Wm. Corson was called to the case. Feb. 10th, Dr. Goodell saw her, and diagnosticated stone in the bladder. Feb. 20th, she was etherized and the urethra dilated, and a digital examination proved the existence of a calculus, about three-quarters of an inch in diameter, attached to the fundus of the bladder. This was removed by Dr. Ellwood Corson. In attempting to dislodge the calculus, it crumbled on slight pressure with the extracting forceps, and proved to be a mass of fecal matter with a calcareous crust, but slightly thicker than an egg-shell. While she was under the influence of the anæsthetic, an attempt was made to wash out the bladder, but after injecting f℥xij of water, and finding that it escaped into the interior of the body, and did not remain in the bladder, the washing-out process was discontinued. After she regained partial consciousness, and made a strong straining effort, the injection came away through the urethra.

As there were some doubts expressed as to the possibility of there being an opening from the bowels to the bladder, she was induced to eat a few stewed figs, and the seeds were *seen* to come from the urethra; on another occasion f℥viij of carmine-colored water were injected into the rectum and were immediately drawn from the bladder by means of a catheter. After the removal of the calculus it was thought proper to keep the bladder washed out daily with warm injections, and to regulate the bowels with mild aperients, but after persisting in this course of treatment for four days it was abandoned, as it caused her great discomfort and did not improve her condition. Afterward she was allowed to eat such food as the system craved, care being taken to select such articles as would not leave an irritating residuum. She rapidly improved, and since April, 1882, has had no trouble with her bladder. If she eats acid fruits or drinks lemonade, she has some irritation in passing urine. That there was a fistulous opening from the bladder to the rectum, there can be no doubt; and when we take into consideration the fact of an abscess forming somewhere in the right iliac region and opening into the bladder, and that the food passed from the bladder in a semi-digested state, and the absence of a fecal odor, there is a strong probability that there was also an opening from the small intestines into the bladder."

DR. J. C. MORRIS had seen two cases of pelvic abscess bursting into the bladder. One case was in the person of a night-nurse at the Episcopal Hospital. A tumor in the lower part of the abdomen first attracted attention. The uterus was drawn up out of reach of the finger when making a vaginal examination; an inflammatory mass could be felt between the uterus and bladder; every half-hour a mixture of urine and pus was voided *per urethram*. If a catheter was passed into the bladder and turned to the right, urine escaped through it; but if it was passed to the left, nearly pure pus passed through it. Examination with the sound showed a large fibroid in the anterior wall of the uterus. This tumor having undergone purulent degeneration, and a fistulous opening being established in the bladder, the pus escaped through the bladder. A galvanic stem pessary, five and a half inches long, was introduced into the uterus, and was finally successful in effecting its reduction to the normal size. This woman died of fibroid phthisis, and at the post-mortem examination, the uterus was found but slightly enlarged, and the fistula into the bladder was not seen, but a communication from the small intestine into the bladder was discovered.

DR. WM. H. PARISH had seen one case of fistulous communication between the bladder, vagina, and small intestine, resulting from an attempted abortion and consequent cellulitis. After long-continued pelvic symptoms, food commenced to pass through the bladder and the anterior and upper portion of the vagina. Water injected into the vagina passed into the bladder, but a sound could not be made to follow it. The food which passed through the fistula was incompletely digested.

DR. ELLIOTT RICHARDSON read a

REPORT ON RESULTS OF POST-MORTEM EXAMINATION OF THE BODY OF LINA EARL.

This woman was operated upon September 22, 1880, for removal of a living child from the uterus by Cæsarean section, as modified by Porro and Müller. A report of the case was published in the AMERICAN JOURNAL OF THE MEDICAL SCIENCES, Jan. 1881. The immediate results of the operation were in every way favorable.

The child was living and the mother made a speedy recovery.

She died in New York City on February 24, 1883, two years and five months after the operation. She had been for two years previous to her death at times an invalid, and was under my care occasionally for the treatment of attacks of acute rheumatism, anæmia, etc., to which her life of hardship and exposure as an exhibiting curiosity rendered her peculiarly liable. The more recent symptoms which appeared during the last illness I did not witness, but learned were attributable to defective action of the kidneys.

At the post-mortem examination, made about 9 P. M. on February 24th, ten hours after death, there were present Drs. Satterthwaite and Hegeman, of New York, and myself.

Inspection of the body showed the long bones of the extremities to be deformed as in rachitis; deformities which had not been so apparent during life. General anasarca was present. On the surface of the abdomen a cicatrix was observed extending from a point about one and one-half inch above the umbilicus to within about three-quarters of an inch of the symphysis pubis. This cicatrix was the remains of the abdominal incision made at the time of the operation for her delivery, and occupied the linea alba directly in the median line, except that at the umbilicus it was deflected to the left. Nearly the whole of that portion of the cicatrix extending between the symphysis pubis and the umbilicus was the site of a large hernia, which, however, did not extend into the latter. This hernia I had seen during the patient's life. It began to appear about six months after the operation, and received no treatment whatever until by its size it became inconvenient, then a bandage or truss was applied, and this she wore constantly until her death. The production and enlargement of the hernia had been greatly favored by the woman's course of life as an exhibitor of herself and child, for the latter she lifted up and held in her arms many times a day in order to display it to her visitors, even after it had become much too heavy for her to carry.

The body was opened by a long incision from the top of the sternum to the symphysis pubis. This incision was deflected to one side opposite the cicatrix of the old abdominal wound, in order that the relations of this to the abdominal contents might be more closely observed. The body, as before stated, was anasarcous throughout; some clear serous fluid was found in the peritoneal cavity, and a good deal in the cavities of the pluræ and the pericardial sac.

Dr. Richardson very much regretted that he had no data of microscopic appearance of any internal organ or tissue to give. Only the gross lesions which could be detected by the unaided eye in a hasty examination can be given. The heart was not opened, but the left ventricle appeared abnormally large. The lungs were œdematous, and pneumonia of the right side was observed. The spleen was enlarged. The liver presented an appearance of fibrous or "hob-nail" degeneration. The kidneys showed unmistakably the existence of Bright's disease. The abdominal and pelvic cavities gave no evidence of any peritoneal or cellular disease. The hernia was found to be covered by peritoneum and skin; the remaining structures having parted to admit the protrusion of the intestines and peritoneal covering. No adhesions between the cicatrix and subjacent structures could be detected except at the lower angle of the wound. It was at this point that the stump of the uterus had been fixed, in a manner similar to the disposal of the pedicle in ovariotomy. A fibrous band was found extending from a depression in the abdominal wall, at this point, to a body consisting of the remains of the uterus.

Dr. Satterthwaite, who examined these specimens, writes that this body, which occupied nearly the normal position of the cervix uteri, except that it was displaced somewhat anteriorly, presented the following characteristics: "The extreme length of the stump was 4.75 cm. (1.87 inch); vertical thickness 2.5 cm. (1 in.); its breadth 1.5 cm. (⅝ in.). On attempting to pass a uterine probe into the os externum, it was found to enter with difficulty, though the cervical canal was capable of admitting a No. 10 (English) sound. The mucous membrane was coated with a deposit of white, thick, gelatinous material, and was intact for a distance of 3.5 cm. (1¼ in.). No naked-eye evidences of cicatricial tissue were made out at the amputated extremity of the neck."

Examination of the pelvis *in situ* was of much interest to me. Measurement of the superior strait gave for the

Conjugate diameter,	.	.	2 inches exactly.
Transverse	"	.	. 4¼ "
Oblique	"	.	. 4⅜ "

The pelvis was a rachitic one, although the pavilion did not present the wide-spreading alæ or the diverging anterior-superior spinous processes of the ilia, which are the usual deformities of rachitis in this part of the pelvis. The true pelvis, however, presented highly characteristic deformities. The sacrum was at its upper part dislocated, and pressed downward and forward into the pelvic cavity, while the lower extremity, being held by ligamentous bands to the ischia and pelvic bones, caused a sharp bending forward of the last three vertebræ of the sacrum. This deformity implied abnormal softness and pliability of the bone at a time when the individual was of sufficient age to either stand or sit erect, so that it alone is conclusive evidence of rachitis having existed. The normal curvature of the pubic bones was nearly lost, so that they receded from the symphysis in nearly straight lines backward and outward to join the ischia and ilia, the two pubic bones when viewed from above forming an abnormal angle at the symphysis. The shape of the superior strait was therefore obtusely cordate, deeply indented at its base by the promontory of the sacrum projecting far into it. I was much surprised at the evidences of rachitis, which became more and more conclusive as the examination proceeded. Since the history of the patient formally given me was that of excellent health from birth to the time of the operation, in 1880, and we were told by the woman, and those who had known her best in early life, that she was in her figure an almost exact counterpart of her father, these facts—as I supposed them to be—led me to believe that her shape was due to arrested growth, and not to rachitis.

It will be of interest to know that the child of this woman is now living, that he is well developed, and presents no deformity nor any symptom of rachitis. He is of fair size for his age.

In closing, Dr. Richardson drew the following conclusions from the examination:

1. That the deformity of pelvis and extremities was due to rachitis.

2. That the operation had nothing to do with the patient's death.

3. That the operation caused the patient no inconvenience except from the hernia, which would either not have become developed, or at most would have been small, had it not been for the exposure of the woman to unusual strain, and her total neglect to resort to any treatment until the hernia became large.

4. That success, in so far as the woman was concerned, would have been possible, and even probable, with diameters so large if embryotomy had been re-

sorted to in this case, but the operation would still have been dangerous and the child would necessarily have perished.

Dr. R. P. Harris remarked that of five Porro operations in this country, four have been fatal. This is the first successful operation in which a post-mortem examination has been obtained after entire recovery.

Dr. Richardson, in reply to Dr. A. H. Smith, stated that no trace of a fistulous opening between the stump of the uterus and the abdominal wall existed at the time of death.

Dr. B. F. Baer read the history of a case of

SUPPURATING CYST OF THE BROAD LIGAMENT, WHICH HAD PERFORATED THE BLADDER,

and exhibited the specimens removed by laparotomy. The characteristic points were chills, exhaustion, anorexia, tenderness throughout the lower abdomen, and a small, painful tumor in the left iliac region, with great irritability of the bladder. Pulse 120, temperature 100° to 102°. The tumor extended down between the bladder and uterus, and the latter was retroverted. Douglas' cul-de-sac was occupied by a thin-walled fluctuating cyst, about the size of a large orange. The uterus could be moved slightly from side to side; the anterior tumor rested on the bladder and was adherent to it. The history showed a slowly growing cyst with purulent contents, commencing about three years before, when the first chills and a mild septicæmic fever had occurred. Gradual emaciation had been going on since that time. Tympanitic resonance of the tumor gave evidence of decomposition with evolution of gas. When the catheter was passed before operating, several ounces of very fetid pus flowed through it, showing a spontaneous rupture of the cyst into the bladder. The cyst was found adherent to the abdominal wall and to the bladder, but not to the intestines or uterus. The cyst was aspirated and removed by laparotomy. The pedicle, consisting of broad ligament and Fallopian tube, to which the left ovary was adherent, was transfixed and ligated. The cyst in Douglas' pouch arose from the opposite broad ligament; it had formed no adhesions and was removed without evacuation of its contents. The ovary and Fallopian tube were healthy and were not removed. The aperture in the bladder through which the contents of the cyst had escaped, was valvular, and was closed by the compression furnished by the external dressings. The patient died from exhaustion soon after the close of the operation.

Dr. Baer cited cases from W. L. Atlee, Peaslee, Keith, George F. French, and Goodell, to prove the correctness of the principles upon which he operated.

Dr. W. H. Parish thought Dr. Baer's rules safe and sound; he had removed a suppurating cyst with anterior adhesions. An experienced operator, who was present, recommended delay, but feeling sure of the correctness of his own principles, he removed the cyst and the patient recovered. In another case, in which a fistulous opening discharging pus existed, suppurative peritonitis was diagnosticated, but after death from septicæmia, a post-mortem examination revealed a suppurating cyst of the ovary.

NEW INVENTIONS.

A SIMPLIFIED EVACUATOR FOR LITHOLAPAXY.

Dr. Henry J. Bigelow has modified the evacuating instruments used in litholapaxy, with the view of securing a form which will hold securely the fragments after aspiration. This has been the chief difficulty which had yet to be overcome in all evacuators heretofore made. Dr. Bigelow finds that the simplest way of obviating this difficulty is to collect the fragments in a bulb, and prevent their escape. For this purpose he uses a straight cylinder with perforated walls, which is nothing more than a prolongation of the catheter into the bulb. The water which brings the fragments from the bladder is strained on its return. He says: "To the open end of this perforated cylinder a valve might be attached, either a ball-valve moving loosely, which is less liable to obstruction than a valve with a hinge, or still better at the same point, half an inch of collar tube which opens, allowing the fragments to pass up through it, and collapses with the reversed current, cutting off their retreat; the water as it returns passing back through the perforated walls. In operating with this instrument I have found it to work perfectly, but a valve is not necessary, and the apparatus is more simple without it."

Fig. 1.

Dr. Bigelow's evacuator, with elastic bulb, glass receiver, and stop-cocks. Below is a metal brace, between the collar of the glass receiver and that of the catheter, to steady the latter. Within the bulb, and open at the end, is a tube-strainer to prevent the return of débris.

The instrument is shown in Fig. 1. The catheter enters a spherical bulb obliquely upward, is prolonged to the centre of the cavity by the perforated tube referred to, which is open at the end. The catheter, tube, and elastic bulb are in a straight line. By this arrangement the current is not *deflected*, and in this manner the force is not diminished. During the operation the current, with the débris, passes from the bladder straight through the tube into the widest part of the bulb, and the fragments fall into the receiver. When the bulb is compressed the water returns almost entirely through the perforations in the tube, their area being collectively larger than the opening at the end of it, and they being also nearer the point of exit of the water from the bulb. By this means *the return of the fragments is practically prevented.* In case of obstructions to the tube-strainer by mucus, coagula, or other material, it can be removed and cleansed in a few moments. Dr. Bigelow thinks that even when the tube continues to work well, it is better to pass a brush over it if any mucus adheres to it. The perforated tube is a valuable addition, and meets the requirements. It is best not to fasten

the tube permanently into the bulb, the cavity of which should always be easily accessible.

Dr. Bigelow claims other advantages for this arrangement: 1. When the trap is within the bulb, the instrument is more compact, shorter, and more easily managed, and the bulb, being in a straight line with the catheter, forms a handle which enables the operator to direct the catheter more easily. 2. The glass receiver, being attached immediately below the bulb, is more easily seen. 3. A brace unites the metal collar of the catheter with that of the glass receiver, and so steadies it that the catheter does not feel the movement of the bulb. Patients often complain of this oscillation when the ordinary instruments are employed. This result is further attained by the conical projection of the bulb at the point where the catheter is attached. 4. An elastic hose (Fig. 2), easily attached to the top of the

FIG. 2.

Apparatus belonging to Bigelow's evacuator, but not essential to it, viz., a tunnel and a hose, both of which fit on to the top of the bulb, and an extra stop-cock for the evacuating catheter.

bulb, facilitates the operation. With this, any air or discolored water can be driven out and clean water introduced, by a single compression of the bulb, with no delay and without taking off the catheter.

By this arrangement, in short, we can regulate the amount of water in the bladder at any time—a very important point. This should be regulated, at first, according to the capacity of the bladder; then it may be necessary to withdraw the water quickly, in case of retching, to allow for the muscular strain, or to relieve the violent expulsive efforts of the bladder, which may become very tense. One end of the hose being attached to the bulb, the other can remain in a vessel placed between the patient's knees, or in any other convenient place. The hose, however, is not essential. A funnel is furnished with the instrument, for those who prefer it, Fig. 2; also a second stop-cock, Fig. 2, which, if attached to the head of the catheter, is useful in keeping the bed-clothes dry when the bulb is removed. This improved instrument is made by Codman & Shurtleff, of Boston.

CORRESPONDENCE.

PREHISTORIC TREPHINING.

To the Editor of THE MEDICAL NEWS.

SIR: The editorial in your number for March 24th, entitled "Prehistoric Trephining," caused me to hunt up a curious passage in *The Anatomy of Melancholy*, and having found it, I have made a note of it. Here it is:

"Cauteries and hot iron are to be used in the suture of a crown, and the seared or ulcerated place suffered to run a good while. 'Tis not amiss to bore the skull with an instrument to let out the fuliginous vapours." Sallus Salvianus, *de re medic. lib. 2, cap. 1.* "because this humour hardly yields to other physics, would have the leg cauterized, or the left leg, below the knee, and the head bored in two or three places," for that it much avails to the exhalation of the vapours: "I saw (saith he) a melancholy man at Rome, that by no remedies could be healed, but when by chance he was wounded in the head, and the skull broken he was excellently cured." "Another, to the admiration of the beholders, breaking his head from a fall from on high, was instantly recovered of his dotage." Gordonius, *cap. 13, part 2*, would have these cauteries tried last, when no other physic will serve. "The head to be shaved and bored to let out fumes, which without doubt will do much good. I saw a melancholy man wounded in the head with a sword, his brain-pan broken; so long as the wound was open he was well, but when the wound was healed, his dotage returned again." But Alexander Messaria, a professor in Padua, *lib. 1, pract. Med., cap. 21, de melanchol.* will allow no cauteries at all, 'tis too stiff a humour and too thick, as he holds, to be so evaporated. Guianerius, c. 8, *Tract* 15, cured a nobleman in Savoy, by boring alone, "leaving the hole open a month together," by means of which, after two years' melancholy and madness, he was delivered. All approve of this remedy in the suture of the crown; but Arculanus would have the cautery to be made with gold. In many other parts, these cauteries are prescribed for melancholy men, as in the thighs (Mercurialis consil., 86), arms, legs. *Idem consil.* 6, and 19, and 25. Montanus 86. Rodericus à Fonseca *tom.* 2, *consult.* 84, *pro hypochond. coxa dextrâ*, etc., but most in the head, "if other physic do no good."

Burton's immortal work was first printed in 1621.

Yours truly,

WALTER F. ATLEE.

PHILADELPHIA, April 9, 1883.

OBITUARY.

JOSEPH K. BARNES, M.D., LATE SURGEON-GENERAL, U. S. ARMY.

BRIGADIER-GENERAL JOSEPH K. BARNES (retired), late Surgeon-General, United States Army, died at his residence in Washington, D. C., on the morning of April 5, 1883. He was born in Philadelphia, July 21, 1817; studied medicine in the office of Dr. Thomas Harris, and graduated from the Medical Department of the University of Pennsylvania in 1838. After graduating, he served for one year as resident physician in Blockley Hospital, and one year as physician to the poor in the northwestern district of Philadelphia. He then entered the army as assistant surgeon, his commission being dated June 15, 1840. After four months' service at West Point, he was sent to Florida, where he was on duty with Harney's expedition during the Seminole War. He left Florida in 1842, and was stationed at Fort Jessup, Louisiana, until 1846, when he went to Corpus Christi. During the Mexican War he was chief medical officer of the Cavalry Brigade, and took part in every action on both General Taylor's and General Scott's line, except that at Buena Vista. After the close of the Mexican War, he was in charge of the general hospital at Baton Rouge, La., and then served in Texas, and as Medical Director of the Department of Oregon. From 1854 to 1857 he was at

West Point, after which he was transferred to the Pacific Coast. He was commissioned as surgeon, August 29, 1856.

At the outbreak of the war he was summoned to Washington. He was appointed a medical inspector, with the rank of Lieutenant-Colonel, Feb. 9, 1863, and, on August 10th of the same year, he was promoted over several other inspectors to be the Medical Inspector-General, with the rank of Colonel. On the dismissal of Surgeon-General Hammond, Dr. Barnes was selected to succeed him, and became Surgeon-General, with the rank of Brigadier-General, August 22, 1864. He was breveted Major-General in 1865, and was retired, June 30, 1882, under the recent law prescribing retirement at the age of sixty-four. The cause of his death was Bright's disease, the first symptoms of which were observed about one year ago.

Early in the war, Dr. Barnes attracted the attention of Mr. Stanton, the Secretary of War, who became his steadfast friend; and it was largely due to this friendship, and the consequent support of the Secretary, that General Barnes was able to accomplish so much towards placing the medical department of the army on a proper standing as regards the control of hospitals and hospital-transports. The efforts of local commanders to obtain control of hospital-boats, in order that they might be used occasionally for other purposes, were vigorously contested by General Barnes, and, in consequence of his energetic appeal to the War Department, an order was finally issued, Feb. 8, 1865, directing that "hospital-transports and hospital-boats, after being properly assigned as such, will be exclusively under the control of the medical department, and will not be diverted from their special purposes by orders of local or department commanders, or of officers of other staff departments."

After the assassination of President Lincoln, there was a general feeling that the theatre in which the event occurred should no longer be used as a theatre, but should become the property of the United States. The collections of medical and surgical specimens made during the war had at that time no sufficient room for safekeeping and exhibition, and General Barnes proposed that the theatre should be transferred to the medical department of the army, and used to store the medical and hospital records of the war, and to serve also as a museum. His request was granted; and the Army Medical Museum, the Library connected with it, and the work done in both are well known to medical men all over the world as the result.

As a practical physician and surgeon, General Barnes had a high reputation in Washington, and his name is familiar to the country as one of the consulting surgeons in the case of President Garfield.

In the announcement of his death in General Orders, the Adjutant General says: "He was eminent, skilful, and successful in his profession as surgeon and physician, and distinguished for great administrative ability as the head of the medical department. He inaugurated the *Medical History of the War;* he founded the Medical Museum, and he brought the Medical Department to the highest state of efficiency. . . . At the time of the assassination of President Lincoln and the attempted assassination of Secretary Seward, he attended at the death-bed of the one and ministered with untiring energy and skill to the successful restoration of the other. So during the long illness of President Garfield, he was one of the distinguished surgeons of the land, who for days and nights served in the chamber of the dying President. During these long protracted hours of anxiety and care, his own health gave way, and from that moment to the time of his death he was an invalid. His career was one of honor to himself and of great service to his country."

The medical profession of the United States will emphatically endorse this just and discriminating eulogy.

Surgeon-General Barnes was buried with military honors at Oak Hill Cemetery, Georgetown, on Saturday last.

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

THE CODE OF ETHICS.—The Council of the Central Organization of the New York State Medical Association has just issued the following circular, with a view of securing, through branch associations in every county in the State, united and earnest efforts to restore the Medical Society of the State of New York, and its auxiliary county societies, to their former position of affiliation with sister State medical societies, and also with the American Medical Association:

"*To the Members of the regular*
"*Medical Profession in the State of New York.*

"GENTLEMEN: Representing a large number of physicians associated to uphold the National Code of Medical Ethics, we beg leave to ask you to consider the importance of the object.

"The so-called New Code recently adopted by the Medical Society of the State of New York, sanctions fellowship, by means of consultations, with all practitioners who are 'legally authorized to practise medicine.' This sanction extends to practitioners who have adopted designations intended to distinguish them as belonging to sects apart from, and hostile to, the regular medical profession, and who are organized in order to lessen public respect for this profession and for its members. Will you not seriously consider the question whether under these circumstances affiliation by any act with sectarian or irregular practitioners is consistent with a due regard for the honor of the profession, or with a proper sense of self-respect?

"The New Code has dissevered all connection by representation, of the Medical Society of the State of New York and its auxiliary County Medical Societies with the American Medical Association, and also with the State Medical Societies of the several States of the Union. At the last meeting of the American Medical Association (1882) the Judicial Council decided as follows: 'Having carefully examined the Code of Ethics adopted by the New York State Medical Society, at its annual meeting in February, 1882 (as furnished by the Secretary of said Society), the Judicial Council find in the said Code provisions essentially different from, and in conflict with, the Code of Ethics of this Association; and therefore, in accordance with the provisions of the ninth by-law of the American Medical Association, they unanimously decide that said New York State Medical Society is not entitled to representation by delegates in this Association.' The following is the by-law referred to in the foregoing decision: 'No State or local Medical Society, or other organized institution shall be entitled to representation in this Association that has not adopted the Code of Ethics, or that has intentionally violated, or disregarded, any article or clause of the same.'

"We submit to your consideration that the substitution of the NEW CODE for that adopted by the American Medical Association has inflicted upon the medical profession of this State a great injury and disgrace.

"It is believed that the recent action of the New York State Medical Society in relation to the Code of Ethics is not sustained by the sentiment and judgment of the great majority of the medical profession in the State. But even granting that they who are opposed

to this action are in the minority, it must be admitted that the number is very large. The effect of the action of the State Society, if persisted in, will be a division of the profession of the State into two parties. In view of the evils which cannot but follow such a division, and the many advantages of harmony, we appeal most earnestly to those who have been led to approve of the substitution of the New Code for that of the National, to reconsider the matter, and we solicit the active coöperation of all who are in favor of the National Code, in concerted efforts to effect, as speedily as possible, a reversal of the action of the Medical Society of the State of New York at the annual meetings in 1882 and 1883.

"Communications from societies and individuals who are in sympathy with associations for upholding the National Code of Ethics, and resisting any modifications of that Code which does not emanate from the American Medical Association, may be addressed to JOHN H. HINTON, M.D., No. 41 West 32d Street, New York City.

"Abram DuBois, M.D., J. W. S. Gouley, M.D., Wm. T. Lusk, M.D., Austin Flint, M.D., John H. Hinton, M.D., Samuel S. Purple, M.D., Austin Flint, Jr., M.D., Samuel T. Hubbard, M.D., T. Gaillard Thomas, M.D."

The advocates of the New Code are also at work. Under date of March 30th, they issued the following circular:

"DEAR DOCTOR: You are earnestly requested to attend a meeting to be held at the residence of Dr. Abraham Jacobi, 110 West 34th Street, on Friday evening, April 6th, at 8.30 o'clock, for the purpose of considering the present status of the ethical question.

"Yours respectfully,

"ALFRED C. POST,	S. O. VANDERPOEL,
"C. R. AGNEW,	ROBERT F. WEIR,
"FORDYCE BARKER,	A. JACOBI,
"W. H. DRAPER,	A. E. M. PURDY,
"F. N. OTIS,	THOS. ADDIS EMMET,
"H. B. SANDS,	ALFRED L. LOOMIS."

In response to this invitation, more than fifty physicians, representing various sections of the State, were present.

Dr. Jacobi said, in calling the meeting to order, that the opposition of those who favored the Old Code had been persistent, and was at the same time carried on secretly. It had gained some strength, and it was necessary that the public and physicians who are not informed on the subject shall learn what has been done.

Dr. Post was elected Chairman, and Dr. F. R. Sturgis, Secretary. In the informal speeches that followed, it was the unanimous sentiment that the New Code should be sustained in any event. Some of the physicians were in favor of making a determined fight at once. Others wanted the whole matter ventilated thoroughly but quietly, and in a spirit of conciliation, in order to avoid the split which they said the Old Code men wished to make.

It was said that the Old Code had been obsolete for years, when the New Code was adopted it was simply a question of New Code or no Code. The New Code, by leaving it in the option of regular physicians to consult with homœopaths, merely broke down the barriers that separated both schools.

The Chair appointed a committee of fifteen to consider the matter, and to report a series of resolutions thereon. Those resolutions will be distributed throughout the State for the information of the profession. The report will be made at a meeting to be called shortly. The committee are, Drs. Loomis, Sands, Weir, Post, Sturgis, Little, Barker, and Roosa, of New York; Ely, of Rochester; Hutchins, of Syracuse; Potter, of Buffalo; and Pilcher and Prout, of Brooklyn. This committee will report a plan of action. Among the physicians present from out of town, were Drs. Bailey and Vanderpoel, of Albany; Dr. Hutchinson, of Utica; Dr. Adams, of Carmel, Putnam Co.; Dr. Potter, of Buffalo; and Drs. Ely and Stoddard, of Rochester.

A professional writer describes the existing state of medical politics in New York State as follows:

The sad and lamentable situation in which members of the profession of almost the entire State are placed at the present moment—disfranchised and shut out from affiliation with their brethren of the National and State Medical Societies of the Union, through injudicious and reckless legislation—is one which cannot fail to enlist the sympathy and the earnest efforts of the good and true men of our country to overturn. The efforts of certain aspiring, but indiscreet specialists, which have been realized to effect unwise legislation in the profession, and to permit affiliation with all "legally qualified practitioners," many of whom are of undoubted quackish proclivities, and who have no claims to honorable recognition as physicians but that which comes through the ill-advised, levelling, and specious "Registration Act," have already received, and will continue to receive, the just censure and condemnation of all who hold professional obligations sacred, and who believe that blighted honor is the legitimate fruit of broken pledges.

The *New York Tribune*, in commenting on this state of affairs, says: "Nothing could better illustrate the earnestness of the physicians in the present contest over the ethical code of the American Medical Association than the thoroughness of the work of organization now going on. The State Medical Society cannot consider the question again until next February; yet it is probable that long before that time nearly every regular practitioner in the State will have been asked to commit himself by signature for or against the re-enactment of the Old Code. When next a pitched battle is called, therefore, the contestants will go into the field each side with a perfect knowledge of not only the number, but also of the personality of the other. This city has already been very thoroughly canvassed, and a large majority of the eight hundred or nine hundred members of the County Society have formally arrayed themselves under their colors. The canvass is now to be extended all over the State, and rival literary bureaus have begun to prepare the mind of the rural practitioner for the irrepressible conflict.

"In the medical reviews the controversy has been going on for several weeks. The two largest medical papers in this city are pronounced in their opposition to the Old Code, with this difference: While *The New York Medical Journal* believes the New Code to be a step in the right direction, its preference is for no code at all; *The Medical Record* is 'flat-footed' in favor of the New Code."

WASHINGTON.

(*From our Special Correspondent.*)

THE NATIONAL MEDICAL LIBRARY AND THE LIBRARY OF CONGRESS.—An article has recently appeared in one of the weekly papers of Washington, *The Sunday Herald*, which deserves more than a passing notice. It comments upon the great increase in value of the libraries of Washington, of the increased demand by readers for works printed in foreign languages, and stigmatizes as a fraud the National Medical Library, because its Librarian, Dr. Billings, has found it has grown to such dimensions, and to be of such importance, that he does not care to have it lost in the mass of books which have long since grown out of Mr. Spofford's control, as the Librarian of Congress. Not that

Mr. Spofford is responsible for this loss of the control—for it probably causes him more positive chagrin than any one else concerned in the matter—and not but that he is as capable a man as can be found for conducting a library many times its present size, but the U. S. Congress *will not* help him out of his dilemma.

This newspaper writer makes two statements which show that his information is obtained from unreliable sources. He says: "But the general public has no library." The rooms which contain the books of the library of Congress are now so heaped up with volumes that the librarian and his assistants have scarcely room to turn around in, and every now and again there comes from the upper stories an unexpected book-slide, which imperils literature and brains alike, both being top-heavy. Notwithstanding this condition of things, there are always tables kept vacant and convenient for the express use of the general public; and a visitor can always see a fair proportion of boys with Beadle's dime novels, or their progenitors, our colored brethren, with big books containing dictionary words, and cranks taking notes from a mass of odds and ends, seated at these tables and using them as freely as they please. It is astonishing sometimes to see how much trouble is taken to furnish an applicant—and he may be of the unwashed general public—with the literature he asks for. It is very probable that Mr. Spofford has still in the library a few anatomical works, with plates, for pruriency of whatever age, to study the organs of generation, etc., from, and it is certain that boys cannot pursue such studies advantageously in the National Medical Library.

He says, further, that the National Medical Library is held for the exclusive benefit of a few people in the Surgeon-General's Office and their friends. Very true, but their friends seem to embrace the whole of the medical profession, judging from the statement made in Congress on February 21st, where it was shown that during the past year, books had been loaned to Boston, New York, Philadelphia, Baltimore, Chicago, Cincinnati, St. Louis, and other cities; and other people had better let the great majority of these books alone. "That the library has published nothing, aside from the *Medical History of the Rebellion*, which was a mere complication of other peoples' writings by Dr. Woodward and his associates." This, in the face and eyes of the three volumes now published of the *Index Catalogue*, is truly a complication all around. What does the writer expect the library to publish? He meant of course, compilation, but he makes a statement which might have come from a high private in the ranks, or perhaps a first-class clerk *c'est toute la même chose*, as these are the men who are the most apt to complain of the work done by them, which they assume their superiors in rank simply sit down and enjoy the fruits of; for the higher the position is, which a man holds in such work, the better able is he to appreciate the responsibilities and qualities of the one above him.

But, although we may treat this matter in a spirit of raillery, still it has its serious aspect, and the profession may yet be called upon to express an opinion as to what shall be the ultimate destination of the present National Medical Library. Mr. Spofford favors a vast general library, which shall absorb this as well as all other libraries now under the control of the United States Government in Washington. His scheme is to allow the various departments all the books they may require for working purposes, *i. e.*, their tools; but that all books beyond these shall be put into the general library, and thus avoid the expense of duplicating costly books.

The statement made by the *Herald* writer, that there was an understanding between the two librarians that, when the *Medical and Surgical History of the War of the Rebellion* was completed, the books now constituting the National Medical Library should be merged into the Library of Congress, requires explanation. When the present librarian of the Surgeon-General's Office took charge of the books, there were between two and three thousand volumes on hand; these soon grew to the number of thirty thousand volumes; and it was then, with the *Index Catalogue* as a determined project in the mind of the librarian, and as a stimulus for absorbing all available material, that the medical matter in the Library of Congress was asked for, and Mr. Spofford's coöperation was requested. The argument was used that there was not, even at that time, proper accommodation for these books; that they could be better utilized by the Surgeon-General's Library; and that it would be time enough, when the scheme for a universal library had taken proper shape and form, to consider the propriety of returning them. Under this arrangement some fifty volumes of medical periodicals, and, perhaps, some two thousand medical pamphlets, largely inaugural theses, and in great part representing a deposit from the Smithsonian Institution, were withdrawn from the Library of Congress. These books, we understand, are held at the disposition of the Librarian of Congress. No copyrights, of which two of every book so published are deposited, were allowed to be so used, but the Smithsonian accessions, which are varied and somewhat extensive, were diverted, so far as medicine was concerned, into this new channel.

Mr. Spofford is positive that there was a distinct understanding that all the books as they accumulated should, when the proper time came, be again a part of the Library of Congress; but these two librarians cannot arrange such matters amongst themselves with a view alone to their mutual satisfaction. It is for the profession to indicate how these books shall best be preserved, and how the growth of the library shall best be fostered for the benefit of the medical science.

The profession must necessarily look with jealousy and critical scrutiny upon any scheme that will take this library out of the hands of its present management. In the first place, they must recognize that the phenomenal growth of the library is really due to the peculiar fitness and untiring energy of its chief, Dr. Billlings, and in the judgment which he has shown in the selection of his assistants. His personal interest also in general matters which affect the profession has given him a much wider scope and larger field to draw from than would ordinarily be at the disposition of one who was simply a librarian. They must further recognize that medical men should always have charge of the purchase, selection, and arrangement of medical literature; and to make it satisfactory to those who are to profit by it, any other arrangement would require a staff of medical men who, if their abilities are to be in any way commensurate with the duties they would be called upon to perform, would require higher salaries than those of the general assistants to librarians. Further, who shall decide what books are necessary to the work of a department, and what books are not? This involves nice questions that might cause much discussion.

Since the development of the National Museum, the Smithsonian Institution draws constantly and extensively upon its deposit in the Library of Congress for the works which it needs to retain as its working library; and the Medical Museum in the same way requires a large amount of books of reference to be constantly at hand. If it was necessary in the first signs of vigorous growth of the Surgeon-General's Office and the Museum, for Dr. Billings to induce the Librarian of Congress to allow the use of these books, and to aid in obtaining further appropriations for in-

creasing their number, it certainly now, in the full fruition, becomes even yet more and more important that the collection should be kept up and added to. The National Medical Library is freely open for consultation, and if it is not more accessible, and is in daily peril of destruction, it is the fault of the United States Government, which fails to provide it with a suitable building.

In the last days of the session of the last Congress, too late for action, a report was presented from the Committee on Public Buildings and Grounds, recommending the purchase of a site, and the erection of a fire-proof building thereon, to contain the records, library, and museum of the Surgeon-General's office. The report set forth the insecurity of the present building used for the purpose—its walls, far out of plumb, in danger of falling, its roof not fire-proof, and its surroundings of frame shanties. It recommended as a site the neighborhood of the National Museum, and a building to cover an area of about 21,000 square feet, *i. e.*, about 1,350,000 cubic feet, to cost not more than $200,000. This allows for the diminution in time of the clerical force of the record and pension divisions, and consequently room for the laboratory and necessary scientific work of the museum. May it be introduced early and successfully at the next session.

CANADA.

(*From our Special Correspondent.*)

MEDICAL SCHOOLS.—The Annual Convocation of McGill University, for conferring degrees in medicine, was held on the 31st inst., when thirty successful candidates were presented.

At the Montreal School of Medicine (French) thirty-three students have passed the final examination, and will receive the degree from Victoria College, with which the school is at present affiliated.

At the convocation of Bishop's College, held on the 5th, the degree of M.D. was conferred on three candidates.

The examinations of the Ontario Medical Council, for the license to practice in that province, began at Kingston and Toronto on the 3d.

LAVAL UNIVERSITY.—A recent Papal decree settles finally the question of the Montreal Branch of this College, and has created no little excitement among French-Canadian members of the profession, as the Faculté de l'Ecole de Medicine is required not only to desist from further opposition, but to sever its connection with Victoria College, Coburg, a Protestant institution, from which the students obtained degress. What its action will be remains to be seen.

MEDICAL ASSOCIATION OF GEORGIA.—The thirty-fourth annual session of the Medical Association of Georgia will be held at Athens on the 18th inst.

THE UNIVERSITY OF LOUISVILLE held its forty-sixth annual commencement on February 27th. Diplomas were given to sixty-eight candidates. Dr. Theophilus Parvin delivered the valedictory address on behalf of the faculty.

THE ANNUAL COMMENCEMENT OF THE MISSOURI MEDICAL COLLEGE was held in St. Louis on the afternoon of March 6th. The valedictory address was delivered by Dr. John Snyder.

AT THE ANNUAL COMMENCEMENT OF THE ST. LOUIS MEDICAL COLLEGE forty candidates received the degree of Doctor in Medicine. A portrait and marble bust of the late Dr. John T. Hodgen, Professor of Anatomy in the St. Louis Medical College, were presented by Dr. E. H. Gregory. Dr. Boisliniere delivered the valedictory address.

THE ANNUAL COMMENCEMENT OF THE MEDICAL DEPARTMENT OF VANDERBILT UNIVERSITY was held on the evening of February 26th. The degree of Doctor in Medicine was conferred on one hundred candidates. Dr. J. W. Dodd delivered the faculty address to the graduates.

NEW ORLEANS, LA., AND THE SANITARY COUNCIL.—New Orleans will be largely represented at the meeting of the Sanitary Council of the Mississippi Valley, at Jackson, Miss. Delegates have been appointed by the City Council, the Auxiliary Sanitary Association, the Medical and Surgical Association, the Orleans Parish Medical Society, the Chamber of Commerce, the Brokers' Exchange, the Cotton Exchange, the Stock Exchange, the Mechanics', Dealers', and Lumbermens' Exchange, and the Illinois Central Railroad Company.

The representatives of these bodies held a meeting, March 31, which was attended by many gentlemen who were not delegates, among them some members of the Louisiana State Board of Health. The object of the meeting was to discuss the questions which would be brought up at the coming meeting of the Sanitary Council of the Valley, and to formulate some manner of harmonizing action. Enquiry was made of the members of the State Board present, whether that Board would be represented at the Council, and whether any assurance could be given that the Board would immediately report any actual cases of yellow fever, and give the benefit of the doubt in suspicious cases to the people of the neighboring States. In reply, it was stated that it was inexpedient for the Board to be represented at the meeting of the Council—that the relationship existing between the Board and many members of the Council is such that it would be unwise for the Board to have a delegation at Jackson.

It was understood that the two objects which would probably be discussed at the meeting of the Council, were the river and railroad inspections, and the epidemic fund of $100,000, appropriated by Congress and placed at the disposal of the President. Mr. Clark, of the Illinois Central Railroad, said that if every other resource failed, he would be willing to pay for the inspections himself.

BANQUET TO DR. HOLMES.—DR. OLIVER WENDELL HOLMES was entertained at a banquet at Delmonico's, on Thursday evening, by the medical profession of New York.

A MEDICAL "COLLEGE" SCOTCHED BUT NOT KILLED.—A judgment of the New York Supreme Court against Robert A. Gunn and others, originators of the "United States Medical College," has been received at the office of the Board of Health of New York. This institution, it is declared, never has been incorporated as a medical or surgical college, and does not possess the powers or franchises of one. The persons named in the judgment are therefore restrained from granting medical diplomas. The Bureau of Vital Statistics was warned to "reject and refer to the Honorable Board of Coroners all certificates of death signed by graduates of the above-mentioned college, as they have no legal standing as physicians."

In the mean time, a bill has been passed by the State Assembly and is now in the Senate, which is believed to be an attempt to resuscitate the United States Medical College of this city, and nullify the judgment obtained recently in the Supreme Court, declaring it to be not properly organized. The bill was never sent

to a committee in the Assembly, but by unanimous consent was read twice and ordered to a third reading. It was heard of by chance, and by hard work a hearing has been arranged for before the Senate Committee on Miscellaneous Corporations. The bill is entitled "An Act to Legalize and make Valid the Incorporation of Certain Scientific, Medical, and Literary Colleges and Universities," etc., and amend certain previous acts.

The amended act provides as follows:

"All scientific, medical, and literary colleges, universities, and all associations of five persons or more, a majority being citizens and residents of this State, which have filed their several certificates with the intention of organizing or incorporating under said acts a scientific, medical, or literary college or university, and which have reported to said Regents within the two years last past, are hereby declared to be and to have been legally incorporated, upon the filing of their said several certificates, for the purposes set forth therein, and with all the rights, powers, and authority incident to and possessed by corporations duly organized for such purposes; and all by-laws heretofore made by such colleges, universities, or associations, all elections held, and all degrees and diplomas conferred, and all the official acts and proceedings of the trustees named in such certificates, and of their successors, incident to said purposes since the filing of said certificates, are hereby ratified and confirmed, and all rights arising therefrom are hereby secured and perpetuated; and all such colleges and universities shall be subject to the same duties, liabilities and obligations, and to the same control and visitations of said Regents as colleges and universities chartered by said Regents."

Health in Michigan.—Reports to the State Board of Health for the week ending March 31, 1883, indicate that rheumatism, consumption, bronchitis, and dysentery increased, and that remittent fever and whooping-cough decreased in area of prevalence. Compared with the average for the month of March in the preceding six years, measles and influenza were more prevalent, and whooping-cough and remittent fever less prevalent during the month of March, 1883.

Including reports by regular observers, and by others, diphtheria was reported present during the week ending March 31st, and since, at fourteen places, and scarlet fever and measles each at seventeen places.

Typhoid Fever in Providence.—The increase of typhoid fever in this city within the last two weeks has given rise to considerable excitement, which has been increased by exaggerated and unreliable statements. We have obtained from the Superintendent of Health the facts, from which the following statement upon the subject is made. After the great prevalence of fever in November, amounting to an epidemic for a short period, the disease gradually decreased until, during the month of February, only half a dozen cases were reported. In the first half of March there were very few cases. From the 20th of February to the present time, April 7th, there have been seventy-five cases reported in all. Of these, the date of beginning was not given in six cases. This leaves sixty-nine cases. Of these, there were only fourteen which commenced from the 20th of February to the 20th of March. At the latter date there was a sudden and rapid increase, and in the eight days, from the 20th to the 27th of March, inclusive, forty-eight cases of the disease commenced. Nine cases were reported as commencing on the 25th of March. Since the 27th of March the disease has as rapidly decreased, and only seven cases commenced in the city from the 28th of March to the 7th of April, inclusive. None were reported as commencing in the last four days of last week.

In regard to the location of the disease, it has been generally the same as last fall, the greatest number of cases being in the southwest portion of the city.

It is probable that the disease has reached and passed its height, and is now on the decline; and that as the weather grows warmer it will cease. There is nothing in the facts thus far that would justify any panic on the subject; nothing that would warrant the exaggerated statements that have been made of the prevalence of the disease in certain portions of the city; nothing that confirms the theories so persistently promulgated, of the cause or causes of the disease.

Communicable Diseases in Michigan.—The State Board of Health has issued, in pamphlet form, that portion of its annual report for 1882 which treats of the diseases diphtheria, scarlet fever, and smallpox, for the restriction of which special efforts were made during the course of the year. As soon as information was received, officially or otherwise, of the existence of any of these diseases in a locality, the secretary of the State Board communicated with the local authorities, urging them to prompt action, and transmitting documents containing concise directions for carrying out the best methods of preventing the spread of the contagion. Special reports were received from 162 localities where diphtheria prevailed; from 82 places where scarlet fever was present; and from 61 places where smallpox had made its appearance. From the localities which reported diphtheria as present, a total of 1,206 cases were reported, and 296 deaths; but these figures are acknowledged to be below the actuality. The 82 localities infected with the scarlet fever poison reported 284 cases, and 48 deaths. Of smallpox, 589 cases were reported, 159 of which terminated fatally. In twenty-one instances, this disease was brought direct from Chicago; in several instances the importation was from Cincinnati; immigrants by the steamship "Cimbria" occasioned an extensive outbreak; immigrants introduced the disease also into Port Huron twice, and into Detroit twice; the first case, in Plainwell, was contracted in a paper mill. That the efforts of the State Board were productive of good, is very clearly manifested by glancing over the special reports. Commenting on the reports on scarlet fever, Dr. Baker says: "The vital statistics of this State show that for the five years just before the State Board of Health was established, the deaths returned as having occurred in Michigan from scarlet fever averaged 589 each year, and since then, only 412 each year; an apparent saving of 177 lives, on an average, for each of the seven years—1874–'80; or a total of 1,239 lives in seven years. Though more, perhaps, has been accomplished with scarlet fever than with diphtheria, it is believed that in the immediate future events will show, as a result of the work of this Board, a vast improvement in public opinion regarding diphtheria, and, consequently, a great saving in human life from loss by that disease.

State Board of Health, Michigan.—In the meantime the Legislature, in its wisdom, is considering the abolition of this Board (House Bill, No. 68). We are pleased to find, however, that the citizens have a better appreciation of the work of the Board. From the Legislative Journal of March 28th, we extract the following:

Whereas, No State service is of greater importance than one whose purpose is to gather statistics of facts to the end of securing a better knowledge of the causes of sickness, and of disseminating such knowledge among the people as will enable them to avoid such causes, and thereby save themselves the expense, suffering, and death that might not otherwise be avoided;

And whereas, The health service known as the State

Board of Health has done a great work to this end, and can still do more, it has become indispensable to the wants and welfare of our people. Therefore we, citizens of Reed City, State of Michigan, most earnestly request that you do your utmost to defeat House Bill, No. 68, so far as it relates, or any action hereafter that may cause it to relate, to the abolition of the State Board of Health, and any other measure intended to abridge its work and influence.

Referred to the Committee on Public Health.

DANGER FROM HAVANA.—From the 17th to the 30th of March, six vessels arrived at Charleston, S. C., from Havana, Cuba, with foul bills of health. They became infected with yellow fever during their stay in Havana, and lost twenty men by death from this disease, out of the sixty-nine which constituted the aggregate of their crews. No sickness occurred during the voyage, and none since their arrival at the Charleston quarantine station. This extent of disease in Havana so early in the season, appears to Dr. F. Grange Simons, Chairman of the Committee on Quarantine of the State Board of Health, to urge the need for special care, lest the disease be brought to our shores prior to the time when the stricter rules of quarantine are applied. Dr. Simons has notified these facts to the National Board of Health, and proposes bringing them before the State Board at its quarterly meeting, that suitable action may be taken.

PROPAGATION OF MEASLES.—In his bulletin for the week ending March 24th, Dr. P. H. Bryce, Secretary of the Provincial Board of Health of Ontario, Canada, refers to the exceedingly rapid spread of measles in six of the sanitary districts, and suggests attention to preventive measures. "Whatever the physical conditions are tending to propagate measles, it must be manifest to all that the total disregard in most cases for the isolation of patients affected with it explains how, being once present, its extension is carried on. Its infectiousness ought to be urgently called to the notice of all, since its contagiousness is fully developed by the second day of its invasion after some feverishness and catarrh are noticed, and two or three days before the rash appears; while the fact of the patient's unusually rapid improvement after the eruption is well out, makes it possible for the patient to spread the disease during his period of convalescence."

OBITUARY RECORD.—M. BISCHOFF, Professor in the University of Munich, well known by his many valuable works on embryology, has recently died, at the mature age of 75 years.

NOTES AND QUERIES.

HEITZMANN'S MICROSCOPICAL MORPHOLOGY.

To the Editor of THE MEDICAL NEWS.

SIR: In number 637 of the N. Y. *Medical Record*, I find a rather harsh and bitter criticism of C. Heitzmann's *Microscopical Morphology*, which, in justice to the author of an instructive, valuable, highly practical, and useful work, I desire, through the columns of your esteemed journal, to correct, especially since the anonymous critic has seen fit to cast a reflection upon me by mentioning my name among other collaborators of Heitzmann's laboratory in a manner which seems to indicate that I was not fully competent to write satisfactorily upon the subject of my study, published by the Academy of Sciences of Vienna, vol. lxxiii., which Professor Otto Frankenberg, of the Starling Medical College, of Columbus, Ohio, has kindly translated into English, and published in the *Ohio Medical and Surgical Journal*. An abstract of this appears in Heitzmann's book, pp. 504–510, inclusive, entitled "The Changes of Epithelia Produced by Growth of Myeloma."

Though I do not claim to be as world-renowned an histologist as the critic of the *Record* may be, from what I know, still I may say, without fear of contradiction, after many years of study, that I am able to see what is claimed by Heitzmann as the reticular structure of living matter, and that it is not, as the critic has it, the reticulum of cellular death, since everybody can see it in living amœbæ, in salivary and colorless blood, or pus-corpuscles, etc. Furthermore, I may add that Prof. S. Stricker, of Vienna, has recently corroborated the two main discoveries of C. Heitzmann. These are that so-called *protoplasm* has a *reticular structure* in a live condition, as proved in fresh saliva-corpuscles while alive and in motion; and, secondly, that the basis substance, or intercellular substance of Virchow, is likewise endowed with properties of life. In the face of this corroboration, I trust it is unnecessary to say more in defence of the correctness of C. Heitzmann's discovered and recently advanced theories. I am sure the critic will be willing to admit that in comparison with Stricker's authority, his bitter criticism deserves very little consideration from a scientific standpoint.

The critic maintains that America is ever ready to concede to Europe a well-earned preëminence as regards histology. Ten years ago this was perhaps the case, but now we have laboratories and teachers of histology in this country who have no superiors in in any university in Europe.

Finally, the critic advocates teasing, tearing, mounting of specimens in balsam, etc. By this he really shows that he yet depends upon some European teachers, and was not willing to change the methods which are to-day being admitted as improper ones in many of the histological laboratories abroad.

THE NEWS being read by most, if not all, of the readers of the *Record*, and many others, I thought I would request you to publish these few remarks of mine in refutation of an unjust and unjustifiable criticism of a good work, which, I think, deserves rather praise than fault-finding.

I am, sir, yours, very respectfully and truly,

RUDOLF TAUSZKY.

NEW YORK, March 31, 1883.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 2 TO APRIL 9, 1883.

HAMMOND, JOHN F., *Colonel and Surgeon.*—Granted leave of absence for six months on surgeon's certificate of disability, with permission to go beyond the sea.—*Par. 6, S. O. 75, A. G. O., April 2, 1883.*

HAMMOND, JOHN F., *Colonel and Surgeon.*—To be relieved from duty in the Department of the East, and to report by letter to the Surgeon-General, U. S. Army.—*Par. 7, S. O. 75, A. G. O., April 2, 1883.*

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, JANUARY 1 TO MARCH 31, 1883.

BAILHACHE, P. H., *Surgeon.*—Detailed as member of Board for the examination of officers of the Revenue Marine Service, March 27, 1883.

MURRAY, R. D., *Surgeon.*—To proceed to Vicksburg, Miss., as inspector, March 24, 1883.

PURVIANCE, GEORGE, *Surgeon.*—To proceed to Cleveland, Ohio, to investigate management of hospital, January 22, 1883. Granted leave of absence for seven days, February 8, 1883.

AUSTIN, H. W., *Surgeon.*—To proceed to Gallipolis, Ohio, as inspector, January 9, 1883.

FISHER, J. C., *Passed Assistant Surgeon.*—Detailed as member of Board for the examination of officers of the Revenue Marine Service, March 27, 1883.

CARTER, H. R., *Passed Assistant Surgeon.*—To proceed to New Orleans, La., for temporary duty; thence to San Francisco, Cal., for duty, February 7, 1883.

PORTER, F. D., *Passed Assistant Surgeon.*—Granted leave of absence for thirty days, February 10, 1883.

GUITERAS, JOHN, *Assistant Surgeon.*—Granted leave of absence for thirty days, January 19, 1883.

WHEELER, W. A., *Assistant Surgeon.*—To proceed to Chicago, Ill., for duty, January 27, 1883.

ARMSTRONG, S. T., *Assistant Surgeon.*—To proceed to Key West, Fla., for temporary duty, February 1, 1883.

BENNET, P. H., *Assistant Surgeon.*—To proceed to Charleston, S. C., for temporary duty, February 19, 1883.

RESIGNATION.

PORTER, F. D., *Passed Assistant Surgeon.*—Resignation accepted, to take effect March 31, 1883. February 10, 1883.